ASHIN(AL BUREAU OF INVESTIGATION GTON, D. C. 20535 December 15, 1981	Re:	JOHN DOE - VICTIM	 1:
ATE: O:		b6 b7A	INVESTIGATION/SUI	
·		b7C	Bullet Lead-3-95-24	16207
		b7A		
٠			Invoice of Contents	PAC
	,	· · ·		Return to
	Q1 - Q9		12/14/81	Room 7174 755 75 75 75 75 75 75 75 75 75 75 75 75
	K1	•	•	Case #
	(SENT 10-15-	· 8/ `		Mail Room: 1B327, TL 152 (registered mail)
,	SENT 12-15- 1PC, QFF FED EXP, 59	rét i		PSM - Supply Unit, 1B353 (not registered)
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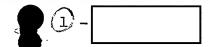
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FEDERAL BUREAU OF INVESTIGATION WASHINGTON, D. C. 20535

To:

JOHN DOE -- VICTIM;

INVESTIGATION/SUICIDE

LOCAL & STATE

December 15, 1981

b7C

AIRMAIL

FBI FILE NO. 95-246207

LAB. NO.

11103049 S QV VB

YOUR NO.

B14066

Bullet Lead-4-95-246207

Examination requested by:

Addressee

Reference:

Re:

Letter dated October 29, 1981

Examination requested:

Firearms - Microscopic Analyses

Specimens:

Ql Cartridge case removed from Kl revolver

Q2-Q7 Six cartridges removed from Kl revolver

Q8 Bag

Q9Hair

.32 Saw Long caliber Arminius revolver, KL Serial Number removed from Q8 bag

Result of examination:

Specimen Q1 is a .32 S&W Long caliber cartridge case of Remington-Peters manufacture which was identified as having been fired in the Kl revolver.

Specimens Q2 through Q7 are .32 SaW

cartridges of Kenington-Peters manufacture.

READING ROOM RECEIVED

This examination has been made with the understanding that the evidence is connected with an official investigation of a criminal matter and that the Ladoratory report will be used for official purposes only, related to the investigation or a subsequent criminal prosecution. Authorization cannot be granted for the use of the Laboratory report an connection with a civil proceeding.

MAIL ROOM [

b6 b7C

RECY

FBI/DOJ

The inside and outside of the Q3 bag were microscopically examined and chemically processed for gunpowder and/or gunshot residues. Scattered gunshot residues were detected on the inside of the Q8 bag. This indicates that the muzzle of a weapon was held within the maximum distance at which such residues would be deposited on the inside of the Q8 bag when fired. This maximum distance was determined to be approximately one foot using the K1 revolver and ammunition like that represented by specimens Q1 through Q7.

The Kl revolver functioned normally when test fired in the Laboratory. The single-action trigger pull was determined to be approximately four and one-half pounds and the double-action trigger pull was determined to be approximately sixteen pounds; these are considered to be normal for a weapon such as the Kl revolver. The Kl revolver was tested in the Laboratory to determine if it could be made to fire without pulling the trigger. When tested in the Laboratory the Kl revolver could be made to fire without pulling the trigger in the following ways:

- 1) by striking the hammer sharply from the rear when the hammer was in the foward position.
- 2) by pulling the hammer to the rear to almost a "full-cock" position and releasing the hammer.

Specimen Q9 consists of brown Caucasian head hairs.

The submitted specimens are being returned to your department under separate cover.

Bullet Lead-5-95-246207

Page 2 11103049 S QV Nexteen pounds; these are considered to be
consumal for a weight such as the KI nevolver.

The KI nevolver was tested in the haboratory:

to determine if it could be made to fine without

pulling the trigger. When tested on the haboratory =

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be both (COPY DICTATION)

The submitted splesmens are being returned to your department under superate comme.

EXPRESS invoice

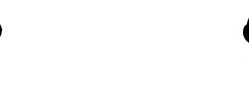
Bullet Lead-7-95-246207

11103049 QV the KI revolver could be made to fire without pulling the tragger in the following) by striking the hommer sharply when the hommer was in the forward position 2) by pulling the hummer to the near to almost a "full-cock" position and the releasing the havemen. See page(2) Bullet Lead-8-95-246207

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	Laboratory Wo	
To:		
		fbi file no. 95-246207 —
		LAB. NO. 1110304 9 S QV V
	OE - VICTIM; IGATION/SUICIDE	YOUR NO B14066
	•	Examination by:
Examination requ	uested by: Addressee	•
Reference:	Letter dated	October 29, 1981
Examination requ	ested: Firearms - Mi	icroscopic Analyses
Specimens receiv	red:	
Specim	ens:	
Ql	Cartridge case rem	noved from Kl revolver
Q2-Q7	Six cartridges rem	moved from Kl revolver
-	Bag	
Q8		
Q8 Q9	Mair	

1/10/81 : 09 Refu 12/10/81 \$66 \$700

Bullet Lead-9-95-246207

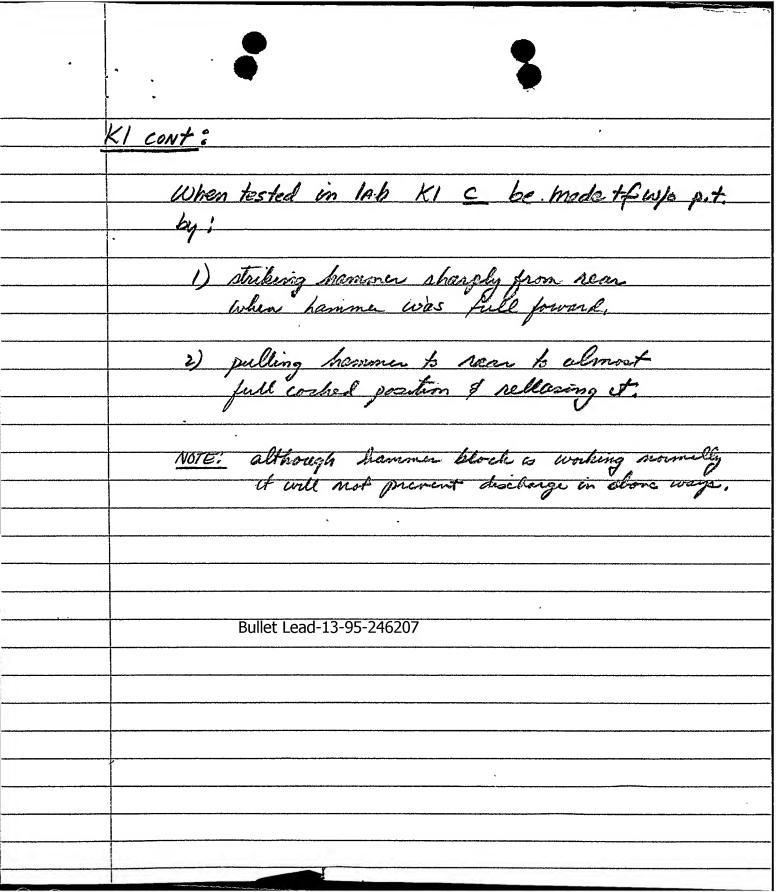


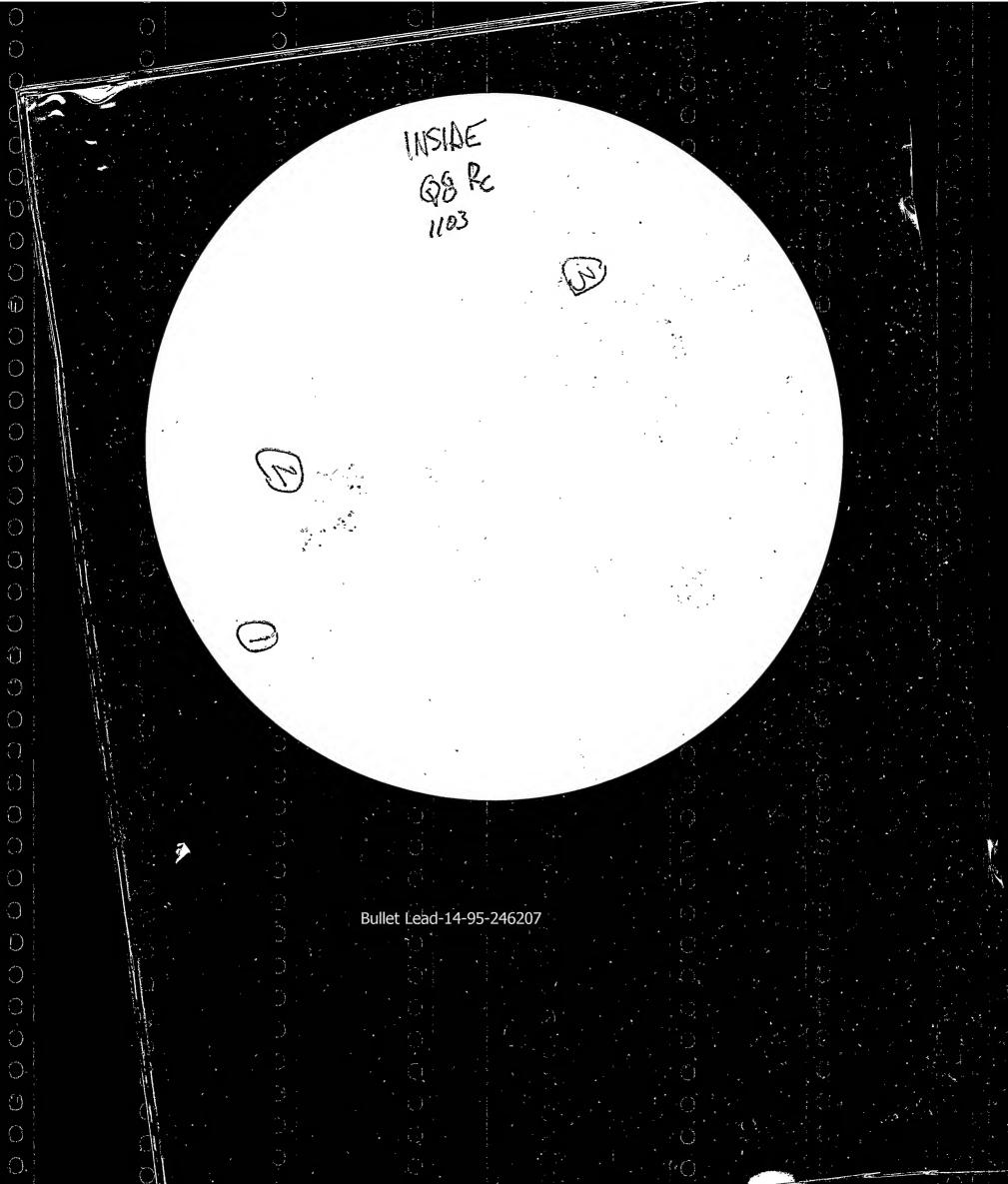
11103049 QV DI CARTAINGE USE MKD (91, PC, 1103) W mouth & W LONG CHAIRER CARTRIPLE CASE OF W/ BRASS CASE & NICKEY PRIMER MKS: FPI, BF Qlident KI -FPI PZ-97 SIX CARTRIDGES MKD(9-,76,1103) ON SIDE SIX 37 SEW LONG UNDER CONTROLES of R.P MFG., W/ BENSS USED & WICKER PRIMER LORDED of LEAD "R-N" BULLETS. Bullet Lead-10-95-246207 KI LEVOLVER MKD(KI, FC, 1103) IN Lyger guard LONG GALBER HEMINIUS REVOLUER b7C GRIPS : BLOWN PLASTIC CART. CAPAL: 7 weic! FUNCTION: NORMAL SA, DA HAMMER BLOCK WORKING TRIGGER PULL NOTE: KI SOAKEE in "CAKITE" which removed rust from bbl, top strap &

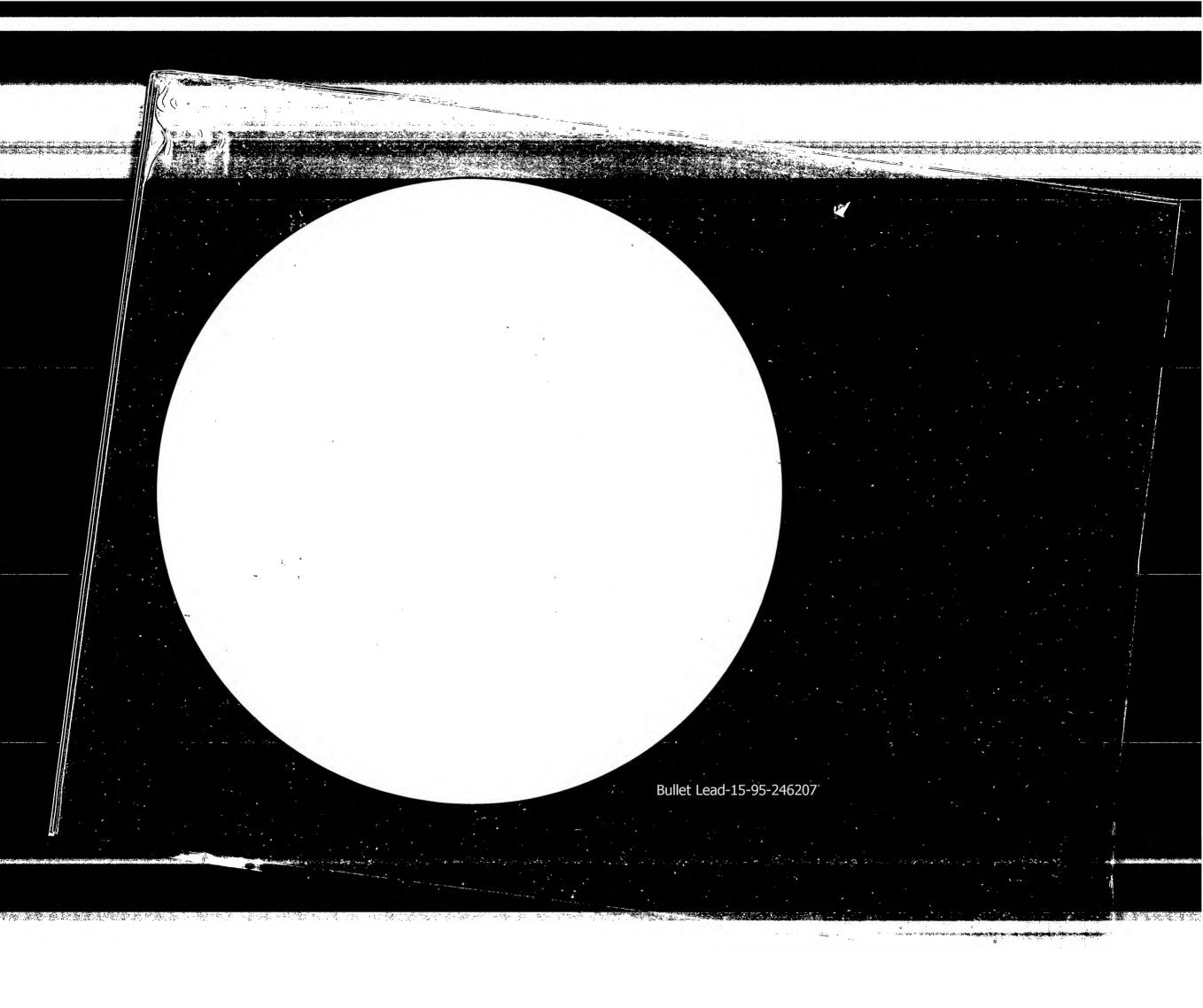
Portron of eylunder. CHINDER opened with RAWhide mallet prints soaking.

Bullet Lead-11-95-246207 11103049 QV

11103049 9V 98 BAG MKO (98, FC, 1103) DN 5106 RIPPED ZIP·LOCK' BAG MICRO! Neg Ne GPR in bag 0103 wprood 1) neg MKD 2) poss. smoke poss , Smoke ground hole 4) neg. NOTE: 3 \$4 in back of bag As chaven. numerous offen small heles in QB Bullet Lead-12-95-246207 INSIDE; + around holes 1-3 (scattered) meg hole "4 I confirmation reaction ourside : + cage of hole # Z vey outside around all other boles RESULTS indicate weapon frid from inside of QB w/m mass distance Smoke @ < 9" SPR test results NO Smoke @ 12" KI & Q1-07







.32 S & W Long caliber Arminius revolver, b7C Kl Serial Number removed from Q8 bag

DICTATION.

SPECIMEN Q9 CONSISTS OF BROWN Republications PAUCATIAN HEAD HAIRS.

Bullet Lead-16-95-246207

Bullet Lead-17-95-246207

SMITHSONIAN INSTITUTION Washington, D.C., U.S.A. 20560

LETTER HAS, HAS NOT, B	FEN WRITTEN

In exchange

b6

b7C

SHIPPING INVOICE

REGISTRAR FILE NO	
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INITIATING OFFICE	
INVOICE NO.	<u> </u>

INSTRUCTIONS TO RECIPIENT:

Loans are made for two months unless stipulated below. When returning material, please mention the Registrar File Number. Types sent on loan must be returned by Registered mail.

DATE February 8, 1988

TO: **b**6 LOAN PERIOD. The Federal Bureau of Investigation b7C Washington, D.C. INITIATED BY ATTN: Special Agent UNIT Department of Anthropology FBI Laboratories b6 b7C APPROVED (6) FBI
A loan for examination at our request
Return of material borrowed THIS MATERIAL IS SENT AS: Department of Anthropology An open long-term exchange
 A loan at your request (7)

MATERIAL (As appropriate, state locality, collector, catalog numbers, etc. Total each distribution category)

One box containing human skeletal remains (Forensic Sase #80114023,

Return of material sent for identification

Bullet Lead-22-95-246207

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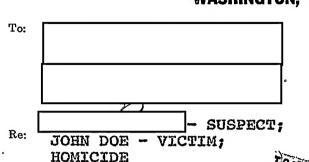
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FEDERAL BUREAU OF INVESTIGATION WASHINGTON, D. C. 20535



February 24, 1988

FBI FILE NO.

95-246207

LAB. NO.

80114023 S VB

YOUR NO.

B14066

LOCAL & STATE

Examination requested by:

Addressee

Reference:

36218059

1988

Letter dated January 12, 1988

Examination requested:

Miscellaneous

Specimen:

Bullet Lead-23-95-246207

Skull 010

Result of examination:

Specimen Ol0 was examined by Department of Anthropology,

Washington, D. C. Institution,

The results of

examination

b6 b7C

are enclosed.

An artist's conceptual drawing of the individual represented by the Q10 skull was accomplished by

with the assistance of an artist of the FBI Laboratory.

The submitted item, along with photographs of the conceptual drawing, is being returned under-

separate cover by registered mail. 28 MAR 4 1988

Enclosure

This examination has been made with the understanding that the evidence is connected with an official investigation of a criminal matter and that the Laboratory report will be used for official purposes only, related to the investigation or a subsequent criminal prosecution. Authorization cannot be granted for the use of the Laboratory report in connection with a civil proceeding.

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FBI/DOJ

7-2 (5-12-82)	RECORDED		1/14/88 b6 b7c	•
b6 b7A	1/21/88 srg/#1	FEDERAL BUREAU OF IN NITED STATES DEPARTMI Laboratory Work Shee	ENT OF JUSTICE	
b7C b7A b6 b7A b7C	Re: JOHN DOE - V HOMICIDE	_ SUSPECT; ICTIM;	FBI FILE NO. 95-246207 - 5 LAB. NO. 80114023 S VB YOUR NO. B14066 Examination by:	
	Examination requested by: Reference: Examination requested: Specimens received: Specimen: QP Skull	Addressee Letter dated Jar Miscellaneous	12, 1988 Cloto SI 1-22-88 given to	5 7c
	Bullet Lead-24-95-24	1 6207		
		,	Ъ7А — — — — — — — — — — — — — — — — — — —	

Result of examination: Specimens : Q10 was b6 b7C -were examined by Department of Anthropology, Smithsonian Institution, Washington, D.C. b6 examination are The results of b7C enclosed. An artist's conceptual drawing of the individual represented by the Qibskull was accomplished by with the assistance of an artist of the FBI Laboratory. Specimens_ b6 examined by b7C National Institute of Dental Research, Nation natitutes of Health, Bethesda, Maryland. .b6 examination-aresenchosed -The-results of b7C The submitted items, along with photographs of

the conceptual drawing are being returned under separate

Bullet Lead-25-95-246207

cover by registered mail.

Date: Jan 26, 1988

To: The Federal Bureau of Investigation, Washington, D.(Attn: Special Agent, FBI Laboratories	Ъ6 Ъ7С
From: Department of Anthropology, Smithsonian Institution, Washington, I	b6 b70

Subject: Forensic Case

b7A

b6 b7C

Material submitted consists of one human cranium, mandible and isolated cranial fragments. All bones are very well preserved with some odor and organic debris present. Numerous open chitinous exoskeletons of fly puparia also are present, especially concentrated within the cranial vault. Several light brown hairs also are present on the cranium, the longest measuring 60 mm in length. Small remnants of dessicated soft tissue remain on the right parietal and facial area.

The cranium is largely intact, with a small circular perforation on the right parietal and a larger broken area on the left parietal-temporal area (see discussion under trauma below). Portions of the left inner orbit also are fragmented and missing. The mandible is intact. All permanent teeth are present, but the four third molars, which had been lost long before death. teeth show relatively little occlusal wear (attrition), and little to no calculus formation. Restorations are present on the occlusal crown of the maxillary left first molar, the occlusal crown of the mandibular right first molar, and the buccal (outside) crown surface of the mandibular left second molar.

Sex: The appearance of the cranium and mandible, especially ·· the large supraorbital ridges, large mastoid processes and robust occipital strongly suggests male sex.

Age at death: The extent of cranial suture closure and dental attrition suggest an age at death probably between 30 and 35 years of age.

Racial affiliation: The following observations all suggest a Caucasian (White) racial affiliation for this cranium and mandible: narrow nasal aperature, sharp nasal spine, receding malars, slight dental overbite, lack of shovel-shaping in the maxillary incisor teeth, very slight alveolar prognathism, and straight brown hair. Note however, that discriminant function analysis of cranial measurements classified the cranium as intermediate between White and Mongoloid, suggesting that the individual may have mixed racial ancestory.

Time since death: Since associated documents suggest that over six years have elapsed between discovery and this examination, it is difficult to estimate the time interval between death and discovery. The presence of odor and dessicated soft tissue suggest that the interval may have been less than two years and more than one month.

Trauma: Evidence for trauma at or about the time of death

consists of two perforations in the cranium. The first perforation appears to represent the entrance site of a round high-speed projectile. This circular perforation measures 8.6 mm in external surface diameter and is located 9 mm above the squamosal suture and about 34 mm posterior to the coronal suture. A fracture line extends anterior from this perforation, generally following the sphenotemporal suture. This fracture resulted in a partial separation of the squamosal portion of the right temporal. The internal surface of this perforation is considerably larger than its external surface.

The exit site of the projectile is located on the left parietal and consists of a large irregular opening measuring 41mm by 25mm just above the squamosal suture and including a small portion of the superior margin of the left temporal. The borders of this area are very irregular and are associated with considerable bone fragmentation. In addition, a section of bone measuring about 10 by 33 mm is missing from the associated posterior border of the left greater wing of the sphenoid. A fracture line 87 mm long extends from the posterior left squamosal suture to lambda. A second fracture line extends about 43 mm superior and posterior to the large opening on the left parietal. The left greater wing of the sphenoid is slightly separated from the temporal. In addition, the left malar is slightly separated from the left temporal at their common suture on the left zygomatic arch.

All of the trauma observed and noted above could be explained by the impact of a single high speed projectile at or about the time of death.

Identifying Characteristics: Note the dental restorations previously described. The individual also had a slight gap between the mandibular left canine and first premolar. The individual apparently had good dental care and displayed a slight maxillary overbite. A slight bony torus also occurs along the midline of the palate (roof of mouth). The individual had a small but rugged face with prominent nose.

Bullet Lead-27-95-246207

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Bullet Lead-29-95-246207

95-246207



Bullet Lead-32-95-246207

95-246207 80114023 SVB Photographs of 010

FILE #. 95-246207-5 CONTENTS: LAB WORK SHEET ITEMS

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Violation(s): HOM Violation date: Violation location: Victim:	City Form Buf	m: LT 01-12-88 ile No: 95-2	46207-5 b7A
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Result of examination:

Serial Number

Reference is made to FBI Laboratory report 11103049 S QV VB dated December 15, 1981, wherein specimens Ol through Q7 and Kl have been previously described. Reference is also made to FBI Laboratory report 80114023 S VB dated February 24, 1988, wherein specimen Q10 was previously described.

This examination has been made with the understanding that the evidence is connected with an official investigation of a criminal matter and that the Laboratory report will be used for official purposes only, related to the investigation or a subsequent criminal prosecution. Authorization cannot be granted for the use of the Laboratory report in connection with a civil proceeding.

FBI/DOJ

9 1333

AC MVL

FIREARMS:

Specimen Q11 is a .32 caliber lead bullet which has been fired from a barrel rifled with ten grooves, right twist. The number, widths and direction of twist of the rifling impressions in the Q11 bullet are like those produced by the K1 revolver indicating that the Q11 bullet could have been fired from the K1 revolver. The Q11 bullet lacks sufficient individual microscopic marks of value for comparison purposes; therefore, it could not be determined if the Q11 bullet was fired from the K1 revolver to the exclusion of all other similarly rifled .32 caliber firearms.

As noted in the referenced December 15, 1981 report, the Q2 through Q7 cartridges are .32 S&W Long caliber cartridges of Remington manufacture. These cartridges are loaded with round-nosed lead bullets. The bullet was removed from one of these cartridges in the Laboratory, namely specimen Q7. It is noted that the Q11 bullet is similar in all its remaining observable physical characteristics to the bullet portion of the Q7 cartridge.

METALS ANALYSIS:

Specimen Q11 and the bullets from specimens Q2 through Q7 (11103049 S QV VB) were analyzed for their elemental composition by instrumental means.

Close compositional associations were found between specimen Q11 and the bullets of specimens Q2 and Q3. Bullets such as these are typically found within the same box of cartridges. It is pointed out that they can also be found in other boxes of cartridges, but it is most likely that these boxes would be produced by the same manufacturer on or about the same date.

For your information, it is not unusual to have more than one composition of bullets in a single box of ammunition.

Page 2 81206010 S QV (over)

Bullet Lead-40-95-246207

MISCELLANEOUS:

The specimen Q10 skull was received in the FBI Laboratory January 14, 1988. A bullet was moted inside the skull. The bullet was removed and retained in the Laboratory while Anthropological examinations were being conducted. The bullet was then replaced inside the skull and returned to the investigating agency on April 20, 1988.

DISPOSITION:

The submitted specimens are being returned to your department under separate cover by air express.

Bullet Lead-41-95-246207

Page 3 81206010 S QV

Reference is made FAT Laboratory regard 11103049 5 OU VB dated December 15, 1981, wherein specimens OI through Q7 and KI have been previously described. Reference is made to FBI Laboratory upont 80114023 SVB Wherein specimen Q10 was previously 81206010 QV decribed. Specemin QII is a 32 calibar lead bullet which has been fined from a barrel rifled with ten grooves, sight houst. the number, widths and direction of twest of the reflexing impressions in the OII bullet are like those produced by the KI revolves indicating that the QII bulks could have been fired from the KI revolver. The QII bullet lacks sufficient individual mucroscopic marks of value for congrammen purposes; therefore, et could not be determined of the Q11 bullet was fired from the KI revolver to the exclusion of all other similarly righted 32 caliber firemens. as noted in the sufcrenced December 15, 1981 report, the QZ through Q7 cartuolises are ,32 5 4 W Long calcher cartudges These cartudges are londed with nound- mosed lead bullets. The bullet was removed from one of these estaidges in the Laboratory, namely specemen Q7. It is noted that the Q11 bullet is similar in all ets remaining observable physical characteristics to the bullet portion of the 97 certrage. Metals Analysis! (copy lutation) Miscellaneous!

Bullet

Lead-42-95-246207

Copy deutation Disposition The submitted specimens are being returned to your department





b6 b7A	RECORDED 12/9/88 co #13	FEDERAL BUREAU OF UNITED STATES DEPART Laboratory Work S	MENT OF JUSTICE	12/6/88	b6 b7С	
b7C To: b7A b7A b7C Re:	UNKNOWN HOMICIDE	SUSPECT; VICTIM;	FBI FILE NO. LAB. NO. YOUR NO. Examination by:	95-246207-7 81206010 S AN	c / &	
	nation requested by:	Addressee	- 1 1000			
` Refere	ence:	Letter dated December 1, 1988				
Examin	nation requested:	Firearms - Me	etals Analysis 🗸	Viscellaneous		
Specin	nens received:					
58 ec G Q2-Q	1 Q12 27 Q13 <u>Q</u>18	Bullet member from LABORAT Cartridge case red Six cartridges red S&W Long caliber	TRY NUMBER 111030 moved from Krevolv moved from Frevolver	ver (Item 3)	b6 b7₽ b70	
		7.5 2/2/	Jeg (O11') QZ-Q7		b6 b7C	

7-1a 2/27/89 RAC! 10+#23 Bullet Lead-43-95-246207

b6 b7С

81206010 5 TH

QII Bullet removed from victim, received inside cardboard cylinder container, inside card board box. (Itami) Marked (QII WA 81206010) on nose.

ALL CE/6E pant vis

Nose of bullet bodly smashed

wt: 92.6 gr

Dia: .31-.32

Cal: , 32 5 & W Long calibu

GRCs:10R 1...025 .035" 6. . 07

Manuf: Most consistent with Remington-Peters

Base to cannelure: .10"

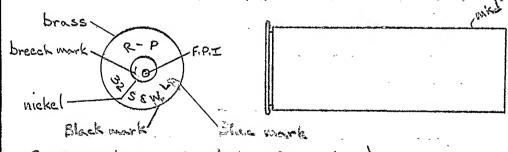
May: Insufficient

Bullet type: head

Saf # 235

QII same GRC as KI QII spope to butlet portion of Q7 (pulled)

.QI Cortridge case removed from revolver, received with QZ. QT., incide plastic Zip-lock bag, incide manife envelope, incide and board box. (Irame) Marked (QI, Rc, \$1296010) on side of case.



. Brass case-nickel primer . Manuf: Remington-Peters Cal: :32 Sow Long

E.F.M. - Extremely limited (circular)

F.P.I - Good

alident Kr see previols

Bullet Lead-44-95-246207

> Bullet Lead-45-95-246207

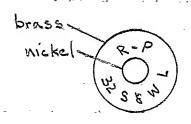


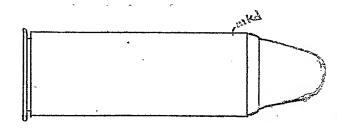


81206016 5 QV.

QZ Cartridge removed from revolver; received inside plastic Zip-lock bag with 93 - Q7 , inside manila envelope, inside and board box.

(Item 3) Marked (QZ, Re, 31306010) on side of case.

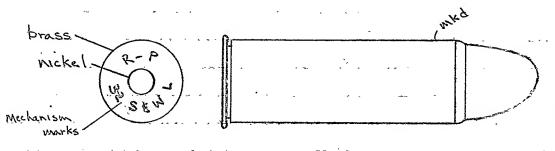




Brass case- nickel primer Manuf: Remington- Peters Cal: . 32 S & W Long Bullet type: Lead R.N.

Mov: None.

Q3 Contridge removed from revolver, received same as Q2, (Item 3) Marked (Q3, R, 3130,6010) on side of case.



Brass case - nickel primer Manuf: Reminyton - Peters Cali. 32 Stw Long Bullet type: Lead R.N.

M.O.V: Nome

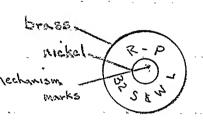
Bullet Lead-46-95-246207

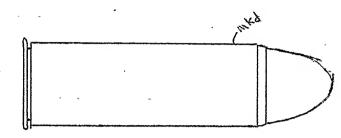




81206010 STH

Q4 Cartridge removed from revolver, received same as Q2, (Item 3). Marked (Q4, R, 31206010) on side of sase.

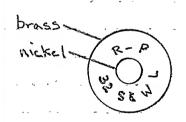


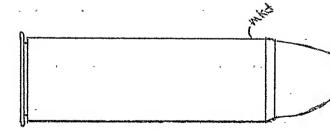


Brass case-nickel primer Manuf: Remington-Peters Cal: . 32 Sow Long Bullet type: Lead R.N.

M-0.V - None

Q5. Cartridge removed from revolver, received same as Q2, (Item 3)
Marked (Q5, R, 81206010) on side of case.





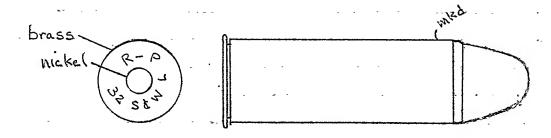
Brass case-nickel primer Manuf: Remington-Peters Cal: . 32 St W Long Bullet type: Lead R.W.

M.O.V- None.

Bullet Lead-47-95-246207

Cartridge removed from revolver, received same as QZ, (Item 3)

Marked (Q6, R, Elsecole) on side of case.



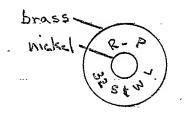
Brass case - nickel primer Manuf: Remington-Peters Cal: .32 SdW Long

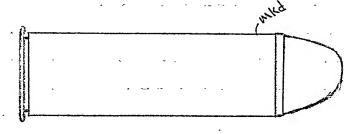
Bullet type: Lead R.D.

M.o.v- None

. 1. u &

Q7 Cartridge removed from revolver, received same as QZ; (Item 3)
Marked (Q7, Re, 81206010) on side of case.





Brass case-nickel primer Manuf: Remington-Petero Cal: .32 S & W Long Bullet type: Lead R.N.

M.O.V. NORC

Note: Cartridge broken down into components: Bullet wt: 97.9 gr

Bullet wt: 97.9gr Flake powder

Bullet Lead-48-95-246207

81206010

b6 b7C

Dictation:

Specimen Q11 and the bullets from specimens Q2 through Q7 (11103049 S QV) were analyzed for their elemental composition by instrumental means.

Close compositional associations were found between specimen Q11 and the bullets of specimens Q2 and Q3. Bullets such as these are typically found within the same box of cartridges. It is pointed out that they can also be found in other boxes of cartridges, but it is most likely that these boxes would be produced by the same manufacturer on or about the same date.

For your information, it is not unusual to have more than one composition of bullets in a single box of ammunition.

b6 b7C

2/17/89

STATS

NAA Other NC 7 24 ICP NC 3 12

7-17-89

Bullet Lead-49-95-246207

APLOB

81206010 S QV NC VB

b6 b7C	dictation:
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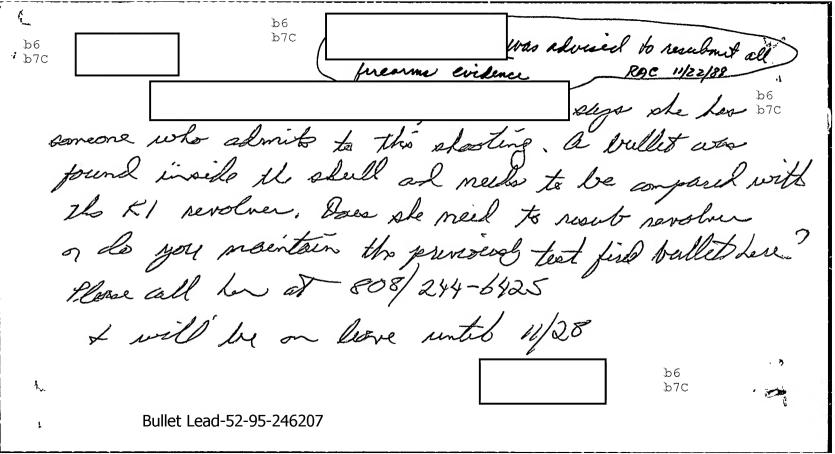
The specimen Q10 skull was received in the FBI Laboratory
January 14, 1988. A bullet was noted inside skull. The bullet
was removed and retained in the Laboratory while
Anthropological examinations were being conducted. The bullet
was then replaced inside the skull and returned to the
investigating agency on April 20, 1988.

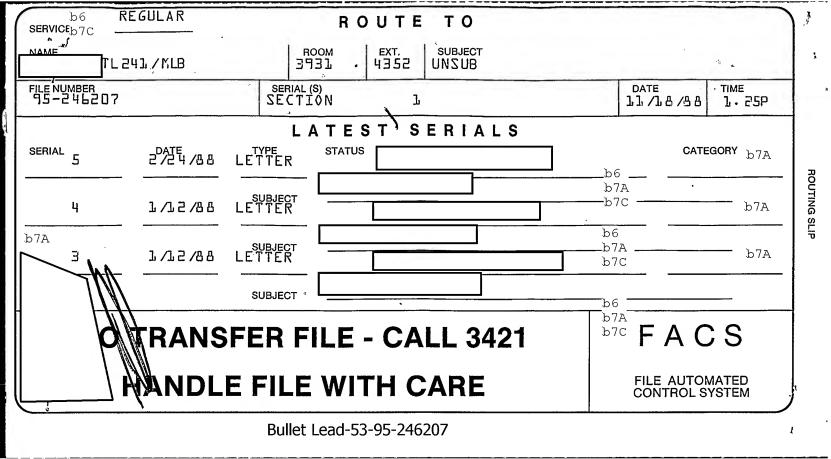
Bullet Lead-50-95-246207

		b b
o:		
e: UNKNOWN - VIO	FBI FILE NO. 95-246207- 7 LAB. NO. 81206010 S TO NO. TIM; YOUR NO.	
	Examination by:	
xamination requested by: eference:	Addressee Letter dated December 1, 1988	
	Firearms - Metals Analysis	
Specimens: Qll Bu **ECIMENS RESUBMIT GI QH2 Ca:	tridge case removed from revolver (Item 3)	
	12/9/88 UNIT co #13 E: UNKNOWN - VIC HOMICIDE Examination requested by: eference: Examination requested: Examination requ	Laboratory Work Sheet Telephoratory Work Sheet FBI FILE NO. 95-246207-7 LAB. NO. 81206010 S PE NC UNKNOWN - VICTIM; YOUR NO. HOMICIDE Examination requested by: Addressee eference: Letter dated December 1, 1988 camination requested: Firearms - Metals Analysis recimens received: Specimens: Q11 Bullet removed from victim (Item 1) Pecimens Resummitted FROM LABORATORY NUMBER, 11103049 5 QV2

Bullet Lead-51-95-246207

7-1a 2127/69 RAC:16+#23





\$120610

\$10 Fast well in let 1-14-88, When hein take

\$24. bulled brisand loose much shall.

Sulled suproved of retained in let. Brellet

uplaced in obach all returned to catalogy

12 RM 4-20-68. Bullet no Bries of 6070

11-25-86 fortal j. + Let placed bullet in whalf.

Bullet Lead-54-95-246207

FEDERAL BUREAU OF INVESTIGATION 12/6/88 RECORDED UNITED STATES DEPARTMENT OF JUSTICE 12/9/88 **b**6 b7C co #13 Laboratory Work Sheet **b**6 b7A b7C To: b7A b6 95-246207 FBI FILE NO. b7A b7C 81206010 S AND NC LAB. NO. SUSPECT; Re: UNKNOWN - VICTIM; YOUR NO. HOMICIDE Examination by: Q2-Q7,Q11 rec'd. from QV 1/13/89 Q2-Q7,Q11 ret'd. to QV 2/21/89 Examination requested by: Addressee Reference: Letter dated December 1, 1988 Examination requested; Firearms - Metals Analysis Specimens received: Specimens: Bullet removed from victim (Item 1) SPECIMENS RESUBMITTED FROM LABORATORY NUMBER 11103049 5 QV: Cartridge case removed from revolver (Item 3) 012 61 Six cartridges removed from revolver (Item 3) .32 S&W Long caliber Arminius revolver (Item 2)

.32 S+Wdorgeal. R-Pcartridges (Q2-Q7) Q11 lead bullet weight = 5.995 g.

Bullet Lead-56-95-246207

b6 b7С

7-2 15-12-820

SEARN FBI/DOJ

Serial Number

FEDERAL BUREAU OF INVESTIGATION 12/6/88 RECORDED UNITED STATES DEPARTMENT OF JUSTICE 12/9/88 co #13 Laboratory Work Sheet b6 b7A b7C To: b7A 95-246207 FBI FILE NO. **b**6 81206010 S PH NC b7A LAB. NO. b7C SUSPECT; Re: UNKNOWN - VICTIM; YOUR NO. HOMICIDE Examination by:

Examination requested by:

Addressee

Reference:

Letter dated December 1, 1988

Examination requested:

Firearms - Metals Analysis

Specimens received:

Specimens:

Qll Bullet removed from victim (Item 1)

Q12 Cartridge case removed from revolver (Item 3)

013-018 Six cartridges removed from revolver (Item 3)

Kl S&W long caliber Arminius revolver (Item 2)

Bullet Lead-57-95-246207

FBI/DOJ

b6

b7C

b7A

	Pasulta	812060	10 5 Q	v nc	
. Sample .	PPM(ev)	. 1. (5b)	PPM(AS)	Prm (Ag)	1°PM (81)
Q11 Victim	104 ±2	. 80±0	33 ± 3	20 ± 0	98 ± 8
Q 2 Contradje	95 ± 4	27.±1	28±2	20±9	98±9
Q3 entraje	93 <u>† 3</u>	. 177 ± 1	24 ± 1	20±6	96±0
*		i was to the second of the sec	m a max a v	·a	
	a a sacrada e como co	S. C. Martin, Debute			a
		The MERGE of the Man at man a shamm	aw 29 ·		
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	er und die deutsche Geleiche G	The Lott Country of Marketing and Lotter Consideration and Conside	** VILLORDOR TOTAL TO Y AND VA ">	Callerance and Alexander	ta u uu .
		e e a sersenn a kaa	the country of		
many many to the second transfers asserts	agentar, open totologisk förtöket bakkt gjan i kann	و بر دولاد المسلم المسل	(a englogensweige), yar bija sas	ran e ilianili. Perme an element.	
THE COLUMN TERM THE MEAN IS	ay in	s. – P. J. Chilliandratis T. H. Millerhalds V. Village, Valletis Vanderium — — ————————————————————————————————	CONTRACTOR AND AREA SECTION AND SECTION AND SECTION ASSESSMENT AND SECTION ASSESSMENT AS	r re = zan re = r	
errende egit også gjelendes och e	us. , ,	r 15-3 Men i n. Ala institution (i.e., San C. 4487)	were the new east letter a new time.	tananan di anti andre	
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Bullet Lead-59-95-246207

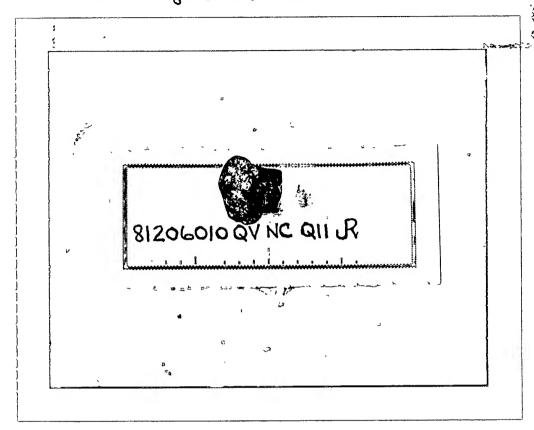
SAMPLE	SAM.WT.	%-COPPER	Z-ANTIMONY	%-ARSENIC (559.30)	%-ARSENI((657.02.
BKG1	12000.0	0.00049	0.01962	0.00018	0.00000
Q11A	15634.0	0.01058	Ø.79941	0.00293	0.00331
Q11B	14852.0	0.01019	0.80390	0.00346	0.00230
@11C	14933.0	0.01048	0.80664	0.00345	0.00396
	AVE -	0.01042	0.80332	0.00328	0.00319
	SD -	0.000203	0.003650	0.000301	0.000835
	ZRSD -	1.950165	0.454392	9-173174	26.179817
Q2A	12510.0	0.00991	Ø.776ØØ	0.00259	0.00277
02B	11776.0	0.00928	0.76616	0.00304	0.00349
92C	11801.0	0.00928	0.77599	0.00268	0.00236
Grad to	1102/1-2/	ur o urur y oc co	W = 1 1 U 7 7	M. T. M. M. T. D. D.	w.ww.coo
	AVE -	0.00949	Ø.77271	0.00277	0.00287
	SD -	0.000364	0.005679	0.000236	0.000571
	%RSD —	3.836754	Ø.734931	8.497594	19.876369
Q3A	12674.0	<i>0.00</i> 893	Ø.77271	0.00230	0.00161
63B	13062.0	0.00937	0.76257	0.00244	0.00346
93C	12719.0	0.00959	0.76559	0.00247	0.00227
	AVE -	0.00930	Ø.76695	0.00240	0.00245
	sp -	0.000334	0.005206	0.000087	0.000936
	%RSD -	3.595705	Ø.678751	3.630477	38.261978
m 3 B	enene a	رسی در سی دست پسی	کی سن س س سن سر		a aaru
Q4A	13502.0	0.02242	Ø.73377	0.00500	0.00513
Q4B	14398.0	0.02211	0.73089	0.00460	0.00401
Q4C	13034.0	Ø.Ø2254	Ø.72892	0.00512	0.00417
	AVE -	0.02236	0.73119	0.00491	0.00444
	SD -	0.000222	• 0.002439	0.000274	0.000609
	%RSD -	Ø.992138	0.333568	5.581376	13.736686
Q5A	13203.0	0.00990	0.67818	0.00094	0.00157
G5B	13084.0	0.01028	0.67420	0.00097	0.00087
G5C	11484.0	0.00951	0.67865	0.00107	0.00129
	AVE -	0.00990	0.67701	0.00100	0.00124
	SD -	0.000383	0.002442	0.000067	0.000353
	%RSD -	3.871447	0.360708	6.782592	28.339716
Q6.A	13908.0	0.00958	0.68246	0.00105	0.00111
Q6B	13925.0	0.00981	0.68438	0.00164	0.00073
96C	14476.0	0.00947	Ø.66455	0.00096	0.00148
	AVE -	0.00962	Ø-67713	0.00122	0.00111
	SD -	0.000175	0.010934	0.000372	0.000376
	ZRSD -	1.819149	1.614730	30.568071	33.967598

Bullet Lead-60-95-246207

	Q7A '	16272.0	0.02175	Ø.72649	0.00478	0.00495	
	Q7B	16668.0	0.02226	0.72471	0.00464	0.00433	ŧ
	<i>Q7C</i>	15493.0	0.02199	Ø.72822	0.00516	0.00524`	
•)	AVE -	0.02200	0.72647	0.00486	0.00484	
		SD -	0.000252	0.001756	0.000269	0.000463	
		%RSD -	1.144371	0.241675	5.531042	9.569040	
0			o.	,			,
	S2416A	12774.0	<i>0.062</i> 77	Ø.77328	0.04960	0.04625	
	S2416B	12206.0	0.06315	Ø.76478	0.04938	0.05150	i
	S2416C	11487.0	0.06246	Ø.77838	Ø.Ø4888	0.05071	
•		AVE -	0.06279	Ø.77215	0.04929	0.04949	
		SD -	0.000349	0.006871	0.000367	0.002831	
		%RSD -	Ø.555347	Ø.889797	0.743725	5.721251	
							:
_	BLANK	12000.0	0.00040	0.00001	<i>0.00003</i>	0.00000	
	BKG2	12000.0	0.00022	0.00000	0.00000	0.00000	i

Bullet Lead-61-95-246207

Evidence Photographs for 81206010 QV NC





812060	10 H	-				A)	ц
SAMPLE		5	<i>G-COPPER</i>	%-ANTIMONY	%-ARSENIC (559.30)	%-ARSENIC (657.02)	•
BKG1			0.00049	0.01962	0.00018	0.00000	•
<i>Q11</i>	SD		0.01042 0.000203	0.80332 0.003650	0.00328 0.000301	0.00319 0.000835	•
G2	SD		0.00949 0.000364	0.77271 0.005679	0.00277 0.000238	0.00287 0.000571	•
<i>Q</i> 3	SD		0.00930 0.000334	0.76695 0.005206	0.00240 0.000087	0.00245 0.000936	•
Q4	SD	Faces	0.02236 0.000222	0.73119 0.002439	0.00491 0.000274	0.00444 0.000609	•
Q5	SD		0.00990 0.000383	0.67701 0.002442	0.00100 0.000067	0.00124 0.000353	•
9 6	SD		0.00962 0.000175	0.67713 0.010934	0.00122 0.000372	0.00111 0.000376	9
97	SD	****	0.02200 0.000252	0.72647 0.001756	0.00486 0.000269	0.00484 0.000463	•
S2416	SD	*****	0.06279 0.000349	0.77215 0.006871	0.04929 0.000367	0.04949 0.002831	•
BLANK			0.00040	0.00001	0.00003	0.00000	
BKG2			0.00022	0.00000	0.0000	0.00000	•

Bullet Lead-65-95-246207

SAMPLE NTERCOMPARISON REPORT FOR 206010 NC

SAMPLE **** %-COPPER **** *** %-ANTIMONY *** **** %-ARSENIC ****

Bullet Lead-66-95-246207

SAMPLE NTERCOMPARISON REPORT FOR 206010 NC

SAMPLE **** %-COPPER **** *** %-ANTIMONY *** **** %-ARSENIC ****

94 0.02236 +/- 0.00022 0.73119 +/- 0.00244 0.00491 +/- 0.00027

Bullet Lead-67-95-246207

SAMPLE NTERCOMPARISON REPORT FOR 206010 NC

SAMPLE **** %-COPPER **** *** %-ANTIMONY **** **** %-ARSENIC ****

...

Bullet Lead-68-95-246207

SAMPLE	SB/AS RATIE
BKG1	112.
Q11A	272.
<i>Q11B</i>	232.
Q11C	234.
<i>G2A</i>	299.
<i>Q2B</i>	252.
<i>02C</i>	289.
Q3A	335.
asb	312.
<i>Q3C</i>	311.
Q4A	147.
Q4B	159.
94C	142.
Q5A	719.
Q5B	695.
<i>Q5C</i>	.EE3
Q6A	649.
Q6B	416.
96C	694.
Q7.A	152.
97B	156.
Q7C	141.
S2416A	16.
S2416B	15.
S2416C	16.
BLANK	Ø.
BKG2	Ø.

Bullet Lead-69-95-246207

(TI)TITLE:
81206010 NC
(LN)LIBRARY: E .RESULT
(SA)SAMPLE TIME: 13 FEB 89 09:49:00
(SE)STD ENERGY TOLERANCE: 2.00
(UE)UNK ENERGY TOLERANCE: 2.00

(TF)THERMAL FLUX: 0.0000E-01 (EF)EPITHERMAL FLUX: 0.0000E-01

(FF)FAST FLUX: 0.0000E-01

(QU)UNITS: UG

Bullet Lead-70-95-246207

	ELEMENT	ENERGY	HALF-LIFE	SEC
1	%-COPPER	511.00	1.2800E 01 1	
2	Z-ANTIMONY	564.09	2.7200E 00 1	
\mathcal{E}	%-ARSENIC	559.30	2.6300E 01 1	1 9.4680E 04
	Z-ARSENIC	657.02	2.6300E 01 H	1 9.468ØE Ø4

STANDARD SAMPLES

	NAME	MASS		FILE	POWER	ACT TIME
1	S2416A	12774.00	产学	.A23	100.0	100000.0
2	52416B	12206.00	产业	. A24	100.0	100000.0
\mathcal{E}	<i>S2416C</i>	11487.00	FA	. A25	100.0	100000.0

ALL STANDARDS ARE THE SAME

	ELEMENT	ENERGY	CONC	ERROR
1	%-COPPER	511.00	6.2800E-02	0.0000E-01
2	%-ANTIMONY	564.09	7.7200E-01	0.0000E-01
3	%-ARSENIC	559.30	4.9300E-02	0.0000E-01
لإند	%-ARSENIC	657.02	4.93006-02	0.00005-01

UNKNOWN SAMPLES

•		NAME	MASS		FILE	POMER	ACT TIME
	1	BKG1	12000.00	FA	. AØ 1	100.0	100000.0
	2	G11A	15634.00	FA	.AØ2	100.0	100000.0
	\mathcal{E}	<i>Q11</i> B	14852.00	FA	. AØ3	100.0	100000.0
	ek	G11C	14933.00	FA	. AØ4	100.0	100000.0
	5	Q2A	12510.00	FA	. AØ5	100.0	100000.0
	6	<i>928</i>	11776.00	FA	. AØ6	100.0	100000.0
	ブ	<i>02C</i>	11801.00	FA	- AØ7	100.0	100000.0
	8	GSA	12674.00	FA	. AØ8	100.0	100000.0
0	9	<i>G3B</i>	13062.00	F4	. AØ9	100.0	100000.0
	10	<i>93C</i>	12719.00	FA	-A1Ø	100.0	100000.0
	11	Q4A	13502.00	FA	. A11	100.0	100000.0
	12	Q4B	14398.00	FA	.A12	100.0	100000.0
	13	G4C	13034.00	FA	- A13	100.0	100000.0
	14	Q5A	13203.00	FA	.A14	100.0	100000.0
	15	<i>Q5B</i>	13084.00	FA	- A15	100.0	100000.0
-	16	95C	11484.00	FA	-A16	100.0	100000.0
	17	96A	13908.00	FA	. A17	100.0	100000.0
	$I \otimes$	96B	13925.00	FA	.A18	100.0	100000.0
	19	06C	14476.00	FA	. A19	100.0	100000.0
	20	G7A	16272.00	FA	-A2Ø	100.0	100000.0
	21	97B	16668.00	FA	-A21	100.0	100000.0
	22	Q7C	15493.00	FA	_A22	100.0	100000.0

	23	S2416A	12774.00	F4	. A23	100.0	100000.0	
0	1,124	'\$2416B	122 <u>0</u> 6.00	FA	.A24	100_0	100000.0	
	25	S241&C	11 7.00	FA	.A25	1 Ø :	100000.0	
	26	BLANK	12000.00	上寸	.A26	100.0	100000.0	
	27	BKG2	12000.00	FA	. A27	100.0	100000.0	

Bullet Lead-71-95-246207

FBI LABOPATORY MASHIOTON DC

14-FEB-89 06:01:07

S2416A 81206010 NC

SAMPLE WEIGHT: (UG) 12774.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 20:32:43 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 911. SEC KEV/CHNL: 0.2500000

• ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

STANDARD REPORT:

 ELEMENT	ENERGY	AREA	CONCENTRI	ERROR	CONSTANT	ERROR
				(1 SIGMA)		(1 SIGMA)
%-COPPER	511.0	9461.	6.2800E-02	0.0000E-01	2.3585E-02	2.5151E-04
Z-ANTIMONY	564.1	45732.	7.7200E-01	0.0000E-01	5.7821E-@3	2.7151E-Ø5
 %-ARSENIC	559.3	5231.	4.9300E-02	0.0000E-01	1.2285E-Ø2	1.7841E-Ø4
<i>%-ARSENIC</i>	657.Ø	590.	4.9300E-02	0.0000E-01	1.3845E-03	5.9438E-Ø5

Bullet Lead-72-95-246207

FBI LABOATORY MASHIOTON DC

14-FEB-89 06:01:47

SZ416B SZ416B

SAMPLE WEIGHT: (UG) 12206.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 20:48:04 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 911. SEC KEV/CHNL: 0.2500000

ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

STANDARD REPORT:

ELEMENT	ENERGY	AREA	CONCENTRI	ERROR	CONSTANT	ERROR
				(1 SIGMA)		(1 SIGMA)
%-COPPER	511.0	8971.	6.2800E-02	0.0000E-01	2.3730E-02	2.5972E-Ø4
Z-ANTIMONY	564.1	43101.	7.7200E-01	0.0000E-01	5.7185E-Ø3	2.7669E-Ø5
Z-ARSENIC	559.3	4942.	4.9300E-02	0.0000E-01	1.2230E-02	1.8184E-Ø4
%-ARSENIC	657.Ø	623.	4.9300E-02	0.0000E-01	1.5416E-Ø3	6.4194E-05

Bullet Lead-73-95-246207

FBI LABORY WASHI TON DC LEAD ANALYSIS 14-FEB-89 06:02:27

SZ416C SZ416C

SAMPLE WEIGHT: (UG) 11487.00

ACTIVATION: 13-FEB-89 Ø9:49:00 NIST RT4 5NIN

ACQUIRE DATE: 13-FEB-89 21:03:24 GEN 13

PRESET LIVE TIME: 900, SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 911. SEC KEV/CHNL: 0.2500000

▶ ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

STANDARD REPORT:

ELEMENT	ENERGY	AREA	CONCENTR.	ERROR	CONSTANT	ERROR
				(1 SIGMA)		(1 SIGMA)
%-COPPER	511.0	8234.	6.2800E-02	0.0000E-01	2.3468E-Ø2	2.6896E-04
Z-ANTIMONY	564.1	41172.	7.7200E-01	0.0000E-01	5.8202E-03	2.8819E-Ø5
 <i>%-ARSENIC</i>	559.3	4574.	4.9300E-02	0.0000E-01	1.2107E-02	1.8863E-04
<i>%-ARSENIC</i>	657.0	574 <i>-</i>	4.9300E-02	0.0000E-01	1.5181E-Ø3	6.5406E-05

Bullet Lead-74-95-246207

SUMMARY OF STANDARD CONSTANTS:

	7 _	FIFMENT	%-COPPER	AT	511.00	KEV
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STANDARD NAME	, CONCENTR.	CONSTANT	ERROR (1 SIGNA)
S2416A S2416B S2416C	6.2800E-02 6.2800E-02 6.2800E-02	2.3585E-02 2.3730E-02 2.3468E-02	2.5151E-Ø4 2.5972E-Ø4 2.6896E-Ø4
WEAN CONSTANT	T STBS.	2.3597F-02	1.4998F-04

2. ELEMENT %-ANTIMONY AT 564.09 KEV

STANDARD NAME	CONCENTR.	CONSTANT	ERROR
			(1 SIGMA)
S2416A	7.7200E-01	5.7821E-03	2.7151E-Ø5
S2416B	7,7200E-01	5.7185E-Ø3	2.7669E-05
S2416C	7.7200E-01	5.8202E-03	2.8819E-Ø5
MEAN CONSTANT.	3 STDS:	5.7725E-Ø3	1.6082E-05

3. ELEMENT %-ARSENIC AT 559.30 KEV

STANDARD NAME	CONCENTR.	CONSTANT	ERROR
			(1 SIGNA)
S2416A	4.9300E-02	1.2285E-Ø2	1.7841E-04
S2416B	4.9300E-02	1.2230E-02	1.8184E-Ø4
S2416C	4.9300E-02	1.2107E-02	1.8863E-04

MEAN CONSTANT.	3 STDS:	1.2211E-Ø2	1.0555E-04

4. ELEMENT %-ARSENIC AT 657.02 KEV

STANDARD NAME	CONCENTR.	CONSTANT	ERROR
			(1 SIGMA)
32416A	4.9300E-02	1.3845E-Ø3	5.9438E-05
S2416B	4.9300E-02	1.5416E-Ø3	6.4194E-05
<i>52416C</i>	4.9300E-02	1.5181E-@3	6.5406E-05
MEAN CONSTANT.	3 STDS:	1.4758E-Ø3	3.6286E-Ø5

Bullet Lead-75-95-246207

F.B.I. LABORATORY ICP REPORT 81206010 NC

89/02/16

	ŧ	COT	c. (%)	
Sample	Copper	Antimony/	Silver	Bismuth
21 M 4 1 M 4 1 A				
SRM2416a				
SRM2416b		0.77750		
SRM2416c	0.06347	0.77105	0.00446	0.09231
average	0.06379	0.78209	0.00451	0.09095
std. dev.	0.00057	0.01392	0.00014	0.00190
% r.s.d.	0.90	1.77	3.30	2.09
			•	
Qiia	0.01033	0.78647	0.00194	0.01059
Q1ib	0.01024	0.80101	0.00198	0.00967
Q11c	0.01050	0.79048	0.00195	0.00906
average	0.01036	0.79265	0.00196	0.00978
std. dev.	0.00012	0.00750	0.00001	0.00076
% r.s.d.	1.24	0.94	0.80	7.86
Q2a	0.00939	0.76811	0.00197	0.01066
Q2 b	0.00938	0.77939	0.00196	0.00887
Q2c	0.00953	0.78269	0.00196	0.00992
average	0.00943	0.77673	0.00196	0.00982
std. dev.	0.00008	0.00764	0.00000	0.00089
% r.s.d.	0.91	0.98	0.22	9.12
Q3a	0.00912	0.77863	0.00198	0.00969
Q3b	0.00900	0.73935	0.00193	0.00963
Q3c	0.00928	0.77705	0.00203	0.00958
average	0.00913	0.76501	0.00198	0.00963
std. dev.	0.00014	0.02223	0.00005	0.00005
% r.s.d.	1.53	2.90	2.62	0.52

Bullet Lead-76-95-246207

Method Name: 1206010NCa

Comment: Bullet Lead Analysis by ICP-AES

Read Delay: 23 sec Replicates: 3 Format name: format-1

* * * -			<u></u>		
Analysis	AS	Sample ID	Sequence	Dilution	Weight / Volume
Number	Posn		Name	•	
1	1	weal standard	bullet		
2	2	blank	bullet .		
3	3	#2 standard	bullet		
4	4	#5 standard	bullet		
5	5	#10 standard	bullet		
6	6	SRM2416a	bullet		.09997/10.1
7	7	Qiia	bullet		.07535/7.6
8	8	Q2a	bullet		.08377/8.5
9	9	Q3a	bullet		.08561/8.7
10	10	SRM2416b	bullet		.09742/9.8
11	11	Q11b	bullet		.06264/6.4
1 2	12	Q2b	bullet		.08122/8.2
13	13	Q3b	bullet		.08689/8.8
14	14	SRM2416c	bullet		.09724/9.8
15	15	Q11c	bullet		.05011/5.1
16	16	Q2c	bullet		.08024/8.1
17	17	Q3c	bullet		.07481/7.6

Gunshot Residue and Metals Ana	lysis Unit		·	
Atomic Absorption	28			
Inductively Coupled Plasma	114	NC	.3	12.
Met - Corrosion	. 50			12
Met - Fract./Stress	05			V-6
Micro. G.S.R.	73	·	2/16/	89
N.A.A G.S.Ŕ.	"i'9			0.
N.A.A Other	35		(A	/
S.E.M.	. 39		<u></u>	
X-Ray Methods	49		·	
Miscellaneous - P	38			

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· ·	Chart and the	
-45.	81206010 NC	

MPLE.	WT(mg.)	AL	HAN	Typ	SAMPLE		ωт	CAL	HAN	Typ .
QILA	75.35	7.5							T	
В	62.64	6.3							1	
c	50.11	5.0	'		,	,				
Q2A	8377	8.4	·				`			
В	81.22	811				w				
c	80.24	8,0		·						
, O3 B	85.61	8,6		•				7		
В	86.89	8,7	,		i,					
C	74.81	7.5					•			
52416A	99,97	10.0			1					
8	97:42	9.7					' :			
С	97.24	9.7					•			
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Bullet Lead-78-95-246207

Element Name: Antimony Height Std Conc Source Name : source-1 Wavelength 206.833* 6* #1: 1.00 Mono Select : #2: 0.99 217.581 10 Signal Comp : No 231.147 8 #3: 22.93 PMT Voltage : 600 252.852 #4: 30.57 Survey Window: 0.040 259.805 **#5: 38.22** Peak Window: 217.919 #6: 45.86 Sampling Time : 100 msec 195.039 #7: 53.50 Bkgd Correction: Auto #8: 61.15 Lower Interval: 0.032

#9: 68.79

#10: 76.44

Volts

nm

nm

nm

0.080 nm

ppm

Upper Interval: 0.031

Units:

Element Name: Bismuth

Std Conc Source Name : source-1 Wavelength Height 223.061* 6 × #1: 1.00 Mono Select : Α 222.825 10 #2: 0.99 Signal Comp : No 600 206.170 4 #3: 2.67 PMT Voltage : Volts 0.100 nm #4: 3.56 Survey Window: 0.040 #5: 4.46 Peak Window: מות #6: 5.35 Sampling Time : 100 msec #7: 6.24 Bkqd Correction: Manual Lower Interval: 0.000 #8: 7.13 #9: 8.02 Upper Interval: 0.018 nm #10: 8.91 Units: ppm

Element Name: Copper

Wavelength Height Std Conc Source Name : source-1 15* #1: 1.00 Mono Select : В 324.754× 221.458 224.700 23 #2: 0.99 Signal Comp : No #3: 1.86 PMT Voltage : 600 Volts 219.958 #4: 2.49 Survey Window: 0.080 nm 327.396 **#5: 3.11** 0.040 213.598 Peak Window: nm 223.008 #6: 3.73 Sampling Time : 100 msec 222.778 #7: 4.35 Bkqd Correction: Auto 221.810 #8: 4.97 Lower Interval: 0.028 49: 5.60 Upper Interval: 0.031 219.226 πm 217.894 #10: 6.22 Units : ppm

Element Name: Silver

source-1 Wavelength Height Std Conc Source Name : 15% #1: 1.00 Mono Select : 328.068* 338.289 23 #2: .99 Signal Comp : No #3: .134 600 Volts PMT Voltage : #4: .178 Survey Window: 0.080 nm Peak Window: 0.040 nm #6: .267 Sampling Time : 100 msec **#7: .312** Bkgd Correction: Auto #8: .356 Lower Interval: 0.028 Upper Interval: 0.031 #9: .397 חווד #10: .446 Units: mqq

Source Name: source-1

Power	Neb	Aux	Plasma	Pump	Equilib
	Flow	Flow	Flow	Rate	Time
1125*	1.000	1.0	15	1.0	15
1000	0.800				
600	0.900				
800	1.000				
1000	1.100				
1200	i.200				
1400	1.500*				
1600	2.000				
1800					

Bullet Lead-80-95-246207

				8/2060/0 N.C. " 2/16/29
02/16/89 14:55				2/16/99
weal standard	rep	1 Copper	em	-30158.7 conc 1.00 window edge
	rep	1 Antimony	em	2404.0 cone 1.00
	rep	i Silver	em	-1034.5 conc 1.00 window edge
	rep	1 Bismuth	em	893.5 conc 1.00
	rep	2 Copper	em	72196.7 conc 1.00
	rep	2 Antimony	em	2425.3 cone 1.00
	rep	2 Silver	em	4771.6 conc 1.00
	rep	2 Bismuth	em	952.9 conc 1.00
	rep	3 Copper	em	73038.2 conc 1.00
	rep	3 Antimony	em	2480.2 conc 1.00
	rep	3 Silver	em	4840.6 conc 1.00
	rep	3 Bismuth	em	997.5 cone 1.00
wcal standard 02/16/89 14:55				
Copper	v s	38358.75		sd 59339.316 %cv 154.70 conc 1.00
Antimony	v s	2436.48		sd 39.314 %cv 1.61 conc 1.00
Silver	a v	2859.21	•	sd 3372.224 %cv 117.94 conc 1.00
Bismuth	v s	947.96		sd 52.190 %ev 5.51 conc 1.00
02/16/89 14:57				
blank	,rep	i Copper	em	276.2
	rep	1 Antimony	em	26.4
	rep	1 Silver	em	48.3
	rep	1 Bismuth	em	21.6
	rep	2 Copper	em	143.1
	rep	2 Antimony	em	14.7
	rep	2 Silver	em	98.5
	rep	2 Bismuth	em	2.1
	rep	3 Copper	em	207.8
	rep	3 Antimony 3 Silver	e m	
	rep rep	3 Bismuth	em	16.0 window edge 21.6
blank	rep	J BISMUCH	e in	<i>L</i> 1 , 0
02/16/89 14:57				
Copper	аv	209.02		sd 66.583 %cv 31.85
Antimony	av	17.61		sd 7.732 %cv 43.92
Silver	a v	54.29		sd 41.574 %cv 76.58
Bismuth	a v	15.12		sd 11.244 %cv 74.38
02/16/89 14:58				
#2 standard	rep	1 Copper	e m	11832.7 conc 0.99
	rep	1 Antimony	em	35.3 conc 0.99
•	rep	1 Silver	em	10792.8 conc .99
	rep	1 Bismuth	em	97.5 conc 0.99
	rep	2 Copper	em	12214.5 conc 0.99
	rep	2 Antimony	em	31.9 conc 0.99
	rep	2 Silver	e m	10951.8 conc .99
	rep	2 Bismuth	em	104.2 come 0.99
	rep	3 Copper	em	12103.8 conc 0.99
	rep	3 Antimony	e m	46.1 conc 0.99
	rep	3 Silver	e m	11023.9 conc .99
	rep	3 Bismuth	em	92.1 cone 0.99
#2 standard				
02/16/89 14:59				
Copper	a v	12050.33		sd 196.449 %cv 1.63 conc 0.99
Antimony	a v	37.77		sd 7.410 %cv 19.62 conc 0.99
Silver	av	10922.84		sd 118.230 %cv 1.08 conc 0.99
Bismuth	αv	97.93		sd 6.064 %ev 6.19 cone 0.99

Bullet Lead-81-95-246207

```
02/16/89 15:00
#5 standard
                           Copper
                                                37455.7 conc 3.11
                 rep
                        1
                                        em
                                                 1228.8 conc 38.22
                           Antimony
                 rep
                        1
                                        e m
                                                 2576.7 conc .223
                 rep
                        1
                           Silver
                                        em
                 rep
                        1
                           Bismuth
                                        еm
                                                   479.1 conc 4.46
                        2
                           Copper
                                                38150.5 cone 3.11
                 rep
                                        em
                        2
                           Antimony
                                        em
                                                  1248.7 conc 38.22
                 rep
                        2
                                                 2516.5 conc .223
                           Silver
                 rep
                                        em
                        2
                           Bismuth
                                                   508.3 conc 4.46
                                        em
                 rep
                        3
                 rep
                           Copper
                                        em
                                                37556.5 conc 3.11
                 гер
                        3
                           Antimony
                                                 1280.2 conc 38.22
                                        em
                 rep
                        3
                                                 2551.9 conc .223
                           Silver
                                        em
                                                   475.7 conc 4.46
                        3
                           Bismuth
                 гер
                                        eтa
#5 standard
02/16/89 15:01
                                                    375.444 %cv
                                                                                   3.11
    Copper
                 a v
                      37720.89
                                              s d
                                                                    1.00 conc
    Antimony
                       1252.55
                                              sđ
                                                     25.936 %cv '
                                                                    2.07 conc
                                                                                  38.22
                 v s
                                                                    1.19 conc
                                                                                  0.223
    Silver
                 a v
                      2548.372
                                              sď
                                                    30.2604 %cv
    Bismuth
                        487.69
                                                     17.930 %cv
                                                                    3.68 conc
                                                                                   4.46
                                              sđ
                 a v
02/16/89 15:02
                                                74497.5 conc 6.22
#10 standard
                 rep
                           Copper
                                        em
                                                  2516.0 conc 76.44
                        1
                           Antimony
                                        em
                 rep
                           Silver
                                                  4894.6 conc .446
                 rep
                        1
                                        em
                        1
                           Bismuth
                                                   988.2 cone 8.91
                 rep
                                        e m
                           Copper
                                        em
                                                76164.1 conc 6.22
                 rep
                                                  2513.2 cone 76.44
                        2
                           Antimony
                 rep
                                        em
                           Silver
                                                  4841.1 conc .446
                                        em
                 rep
                        2
                           Bismuth
                                                  1001.2 conc 8.91
                                        em
                 rep
                           Copper
                                                75897.5 conc 6.22
                 rep
                                        em
                                                  2501.0 cone 76.44
                        3
                           Antimony
                 rep
                                        em
                        3
                           Silver
                                                  4830.9 conc .446
                                        em
                 rep
                           Bismuth
                                                   972.5 cone 8.91
                        3
                 rep
                                        em
#10 standard
02/16/89 15:03
                      75519.70
                                              s đ
                                                    895.256 %cv
                                                                    1.19 conc
                                                                                   6.22
    Copper
                 aν
                                                      8.006 %cv
                                                                   0.32 conc
                                                                                  76.44
    Antimony
                 v s
                       2510.05
                                              s₫
    Silver
                      4855.515
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                                                    34.2130 %cv
                                                                    0.70 conc
                                                                                  0.446
                 aν
    Bismuth
                        987.31
                                              sđ
                                                     14.338 %cv
                                                                    1.45 conc
                 a v
02/16/89 15:04
SRM2416a
                                                  644.64 ppm
                        1
                            Copper
                                        conc
                 rep
                            Antimony
                                        conc
                                                 7944.80
                 rep
                                                         ppm
                                                  46.618 ppm
                           Silver
                 rep
                        1
                                        conc
                        1
                            Bismuth
                                        conc
                                                  899.77 ppm
                 rep
                        2
                            Copper
                                                  650.42 ppm
                 rep
                                        conc
                        2
                                                 8042.22
                            Antimony
                                        conc
                                                         ppm
                 rep
                           Silver
                        2
                                                  47.520 ppm
                 rep
                                        conc
                           Bismuth
                        2
                                        conc
                                                  909.52 ppm
                 rep
                                                  638.62
                 rep
                        3
                            Copper
                                        conc
                                                         ppm
                                                 7944.89
                        3
                            Antimony
                                        conc
                                                          ppm
                 rep
                            Silver
                 rep
                        3
                                        conc
                                                  46.301 ppm
                 rep
                        3
                            Bismuth
                                        conc
                                                  943.79 ppm
SRM2416a
02/16/89 15:05
                        644.56
                                                      5.904 %cv
                                                                    0.92
     Copper
                 a v
                                ppm
                                              s đ
                                                     56.219 %cv
                                                                    0.70
    Antimony
                 υs
                       7977.30 ppm
                                              sđ
                                                     0.6325 %cv
                                                                    1.35
    Silver
                        46.813
                                              sd
                 v s
                                ppm
                                                     23.122 %cv
                                                                    2.52
    Bismuth
                 a v
                        917.69
                                ppm
                                              s đ
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02/16/89 15:06				
		4 6	100 00	
Qiia	rep	1 Copper	cone 103.90 ppm	
	rep	1 Antimony	conc 7817.39 ppm	
	rep	1 Silver	cone 19.664 ppm	
	rep	1 Bismuth	conc 110.28 ppm	
	rep	2 Copper	conc 103.96 ppm	
	rep	2 Antimony	conc 7845.36 ppm	
	rep	2 Silver	conc 19.506 ppm	
	rep	2 Bismuth	conc 98.56 ppm	
	гер	3 Copper	conc 102.29 ppm	
	rep	3 Antimony	conc 7931.43 ppm	
	rep	3 Silver	conc 19.685 ppm	
	rep	3 Bismuth	conc 109.00 ppm	
Qiia		0 212	avia sor. or ppm	
02/16/89 15:07				
		100 00	sd 0.945 %cv 0	. 91
Copper	a v	103.39 ppm		
Antimony	a v	7864.73 ppm		. 76
Silver	av.	19.619 ppm		. 50
Bismuth	a v	105.95 ppm	sd 6.426 %cv 6	. 07
02/16/89 15:08				
Q2a	rep	1 Copper	conc 92.71 ppm	
	rep	1 Antimony	conc 7704.73 ppm	
	rep	1 Silver	cone 19.352 ppm	
	rep	1 Bismuth	conc 115.64 ppm	
	rep	2 Copper	conc 94.73 ppm	
	rep	2 Antimony	conc 7706.03 ppm	
	rep	2 Silver	conc 19.560 ppm	
	rep	2 Bismuth	conc 99.51 ppm	
	-	3 Copper		
	rep	• •		
	rep	3 Antimony	conc 7632.74 ppm	
	rep	3 Silver	conc 20.279 ppm	
	rep	3 Bismuth	conc 104.71 ppm	
Q2a				
02/16/89 15:09				
Copper	a v	93.97 ppm		. 17
Antimony	v s	7681.17 ppm		. 55
Silver	a v	19.730 ppm	sd 0.4866 %cv 2	. 47
Bismuth	a v	106.62 ppm	sd 8.233 %cv 7	.72
02/16/89 15:10				
Q3a	rep	1 Copper	conc 91.90 ppm	
	rep	1 Antimony	conc 7673.32 ppin	
	rep	1 Silver	conc 20.102 ppm	
	rep	1 Bismuth	conc 96.12 ppm	
		2 Copper		
	rep	~ ~		
	rep	2 Antimony		
	rep	2 Silver	conc 19.625 ppm	
	rep	2 Bismuth	cone 93.42 ppm	
	rep	3 Copper	cone 91.26 ppm	
	rep	3 Antimony	cone 7777.83 ppm	
	rep	3 Silver	conc 19.883 ppm	
	rep	3 Bismuth	conc 101.17 ppm	
Q3a		•		
02/16/89 15:11				
Copper	av	91.22 ppm	5d 0.695 %cv 0	.76
Antimony	z v	7786.35 ppm		. 51
Silver	a v	19.870 ppm		. 20
Bismuth	a.v	96.90 ppm		. 06
	•			

Bullet Lead-83-95-246207

02/16/89 15:12			_	
SRM2416b	rep	1 Copper	conc 631.78 ppm	
	rep	1 Antimony	conc 7827.29 ppm	
	rep	1 Silver	conc 43.588 ppm	
	-	1 Bismuth		
	rep			
	rep	• •	conc 630.89 ppm	
	rep	2 Antimony	cone 7817.58 ppm	
	rep	2 Silver	conc 43.912 ppm	
	rep	2 Bismuth	conc 910.00 ppm	
	rep	3 Copper	conc 640.83 ppm	
	rep	3 Antimony	cone 7680.13 ppm	
	rep	3 Silver	cone 44.394 ppm	
	rep	3 Bismuth	conc 879.11 ppm	
SRM24165				
02/16/89 15:12				•
Copper	a v	634.50 ppm	sd 5.502 %cv	0.87
Antimony	a v	7775.00 ppm	sd 82.300 %cv	1.06
Silver	a v	43.965 ppm	sd 0.4053 %cv	0.92
Bismuth	v s	887.70 ppm	sd 19.478 %cv	2.19
02/16/89 15:14				
Qiib	rep	i Copper	conc 102.12 ppm	
	rep	1 Antimony	conc 8022.95 ppm	
	rep	1 Silver	conc 20.512 ppm	
	rep	1 Bismuth	conc 96.26 'ppm	
	rep	2 Copper	cone 103.33 ppm	
	rep	2 Antimony	conc 8009.80 ppm	
	rep	2 Silver	conc 19.576 ppm	
	rep	2 Bismuth	conc 96.58 ppm	
	rep.	3 Copper	conc 101.92 ppm	
	rep	3 Antimony	conc 7997.62 ppm	
	rep	3 Silver	conc 19.558 ppm	
	rep	3 Bismuth	conc 97.55 ppm	
Q11b	reb	3 BISMUCH	соне 77.33 ррш	
02/16/89 15:14				
	~	100 4/	5 7/F N - n	0.75
Copper	a v	102.46 ppm	sd 0.765 %cv	
Antimony	a v	8010.12 ppm	sd 12.669 %cv	0.16
Silver	αv	19.882 ppm	sd 0.5456 %cv	2.74
Bismuth	a v	96.80 ppm	sd 0.671 %cv	0.69
02/16/89 15:16				
Q2 b	rep	1 Copper	conc' 92.52 ppm	
	rep	1 Antimony	conc 7865.08 ppm	
	$r \in p$	1 Silver	conc 19.304 ppm	
	rep	1 Bismuth	conc 92.84 ppm	
	rep	2 Copper	conc 94.03 ppm	
	rep	2 Antimony	cone 7668.87 ppm	
	rep	2 Silver	conc 20.006 ppm	
	rep	2 Bismuth	cone 94.20 ppm	
	rep	3 Copper	conc 94.93 ppm	
	rep	3 Antimony	conc 7847.97 ppm	
	rep	3 Silver	conc 19.655 ppm	
	гер	3 Bismuth	cone 79.33 ppm	
Q2b	•		• •	
02/16/89 15:16				
Copper	a v	93.83 ppm	sd 1.217 %cv	1.30
Antimony	av	7793.97 ppm	sd 108.680 %cv	1.39
Silver	a v	19.655 ppm	sd 0.3511 %cv	1.79
Bismuth	av	88.79 ppm	sd 8.221 %cv	9.26
			· - ·	-

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02/16/89 15:18			
G3P	.reb	1 Copper	cone 89.56 ppm
	rep	1 Antimony	conc 7395.96 ppm
	rep	1 Silver	conc 19.379 ppm
	rep	1 Bismuth	conc 93.99 ppm
	rep	2 Copper	cone 90.37 ppm
	rep	2 Antimony	cone 7433.06 ppm
	rep	2 Silver	conc 19.353 ppm
	rep	2 Bismuth	conc 97.34 ppm
	rep	3 Copper	conc 90.20 ppm
	rep	3 Antimony	conc 7351.51 ppm
	rep	3 Silver	conc 19.245 ppm
	rep	3 Bismuth	conc 97.68 ppm
Q3b			
02/16/89 15:18			
Copper	v s	90.04 ppm	sd 0.426 %cv 0.47
Antimony	v s	7393.51 ppm	sd 40.826 %cv 0.55
Silver	V.S.	19.326 ppm	sd 0.0713 %cv 0.37
Bismuth	a v	96.34 ppm	sd 2.037 %cv 2.11
		P P P	
02/16/89 15:20			
SRM2416c	rep	1 Copper	conc 637.30 ppm
	rep	1 Antimony	cone 7630.85 ppm
	rep	i Silver,	cone 44.054 ppm
	-	1 Bismuth	
	rep		
	rep	* *	conc 627.15 ppm
	rep	2 Antimony	conc 7777.83 ppm
	rep	2 Silver	cone 45.615 ppm
	rep	2 Bismuth	cone 930.96 ppm
	rep	3 Copper	conc 639.71 ppm
	rep	3 Antimony	conc 7722.83 ppm
	rep	3 Silver	conc 44.220 ppm
	rep	3 Bismuth	conc 930.98 ppm
SRM2416c			
02/16/89 15:20			
Copper	a v	634.72 ppm	sd 6.662 %cv 1.05
Antimony	a v	7710.50 ppm	sd 74.261 %cv 0.96
Silver	av	44.630 ppm	sd 0.8575 %cv 1.92
Bismuth	a v	923.17 ppm	sd 13.515 %cv 1.46
02/16/89 15:22			
Q11c	rep	1 Copper	conc 104.82 ppm
	rep	i Antimony	conc 7935.99 ppm
	rep	1 Silver	conc 19.292 ppm
	rep	1 Bismuth	conc 85.84 ppm
	rep	2 Copper	conc 105.33 ppm
	rep	2 Antimony	conc 7734.21 ppm
	rep	2 Silver	conc 20.218 ppm
	rep	2 Bismuth	conc 98.29 ppm
	rep	3 Copper	conc 104.88 ppm
	rep	3 Antimony	cone 8044.26 ppm
	rep	3 Silver	conc 19.278 ppm
	-	3 Bismuth	conc 87.86 ppm
Qiic	rep	o bismuth	сонс от.оо ррш
02/16/89 15:22			
		105 01	
Copper	a.v	105.01 ppm	sd 0.279 %cv 0.27
Antimony	a v	7904.82 ppm	sd 157.357 %cv 1.99
Silver	a v	19.596 ppm	sd 0.5387 %cv 2.75
Bismuth	z v	90.66 ppm	sd 6.682 %cv 7.37

Bullet Lead-85-95-246207

02/16/89 15:24					
Q2c	* 6 0	i Copper	0.071.0	96.35 ppm	
G2 C	rep	1 Copper 1 Antimony	conc		
	_	1 Silver	conc		
	rep	i Bismuth	CONC	7 7	
	rep		conc	97.66 ppm	
	rep	2 Copper 2 Antimonv	conc	94.77 ppm	
	rep		conc	7857.51 ppm	
	rep	2 Silver	conc	19.530 ppm	
	rep	2 Bismuth	conc	106.95 ppm	
	rep	3 Copper	conc	95.07 ppm	
	rep	3 Antimony	conc	7811.16 ppm	
	rep	3 Silver	conc	19.768 ppm	
	rep	3 Bismuth	conc	93.10 ppm	
Q2c					
02/16/89 15:25					
Copper	a v	95.40 ppm		sd 0.841 %cv	0.88
Antimony	a v	7826.92 ppm		sd 26.501 %cv	0.34
Silver	a v	19.654 ppm		sd 0.1194 %cv	0.61
Bismuth	V S	99.23 ppm		sd 7.060 %cv	7.11
02/16/89 15:26					
Q3c	$r \in p$	i Copper	conc	93.31 ppm	
	rep	1 Antimony	conc	7585.41 ppm	
	rep	1 Silver	conc	19.962 ppm	
	rep	1 Bismuth	conc	104.18 ppm	
	rep	2 Copper	conc	91.51 ppm	
	rep	2 Antimony	conc	7956.62 ppm	
	rep	2 Silver	conc	20.360 ppm	
	rep	2 Bismuth	conc	98.95 ppm	
	rep	3 Copper	conc	93.67 ppm	
	rep	3 Antimony	conc	7769.46 ppm	b.
	rep	3 Silver	conc	20.786 ppm	
	rep	3 Bismuth	conc	84.56 ppm	
Q3c					
02/16/89 15:27					
Copper	av	92.83 ppm		sd 1.158 %cv	1.25
Antimony	a v	7770.50 ppm		sd 185.609 %cv	2.39
Silver	a v	20.369 ppm		sd 0.4120 %cv	2.02
Bismuth	2.0	95.90 ppm		sd 10.161 %cv	10.60
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Bullet Lead-86-95-246207

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Bullet Lead-'87-95-246207

FBI LABOATORY WASHIOTON DC

14-FEB-89 06:03:14

BKG1 81206010 NC

SAMPLE WEIGHT: (UG) 12000.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5NIN

ACQUIRE DATE: 13-FEB-89 14:55:16 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 901. SEC KEV/CHNL: 0.2500000 -

) ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

UNKNOWN SAMPLE REPORT

ELEMENT		PEAK NERGY	BKGND	ARE	4	CONCEN	TR.	ı s	BIGMA RROR	%ERI	₹ <i>0 R</i> 	
%-COPPER %-ANTINO %-ARSENI	NY C	564.1 559.3	17.	1157 24	7. 3. 1	.7525E	6 -04	Ø.	.0006 4056E-4	; 95 30	3.Ø 5.6	
%-ARSENI	C	657.0	<u> </u>	4	0 - 3 9	-0000E	- <i>1</i> 01	Ħ	OT DETI	:C/ABL:	:	
				CU		SB		AS		•	AS	
CNTS/UG/			1 =			34.6		73.5			8.85	i
CENTROID		<i>IEL</i>		042		56		2237			2626	
HALF-LIF				2.8 H		7 D		26.3			26.3 H	
BACKGROU				0 L&R					2244 /	R 25	L 19 R	
<i>BACKGROU</i>		ANNELS	21	? L&R		L&R	i i	L i	R		10 L&R	
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FBI LABORTORY WASHIOTON DC LEAD ANALYSIS 14-FEB-89 06:03:27

BKGI 81206010 NC

SAMPLE M				00.00					
ACTIVATI			-89 Ø9:			T4 5MI1	d.		
ACQUIRE	DATE	13-FEB	-89 14:	55:16	GEM 13				
PRESET L	IVE TI	INE:	900	. SEC	CALIB	DATE:	13-F1	EB-89 14	4:27:50
ELAPSED	REAL 7	TIME:	901	. SEC	KEV/	CHNL:	0.3	2500000	
ELAPSED	LIVE 7	TIME:	900	. SEC	OFFS	ET:	-0.4	0000228	KEV
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FBI LABORY WASHIOTON DC CEAD ANALYSIS 14-FEB-89 06:04:17

QIIA SIZØ6ØIØ NC

SAMPLE MEIGHT: (UG) 15634.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 15:10:28 GEN 13

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

0.2500000 ELAPSED REAL TIME: 912. SEC

KEV/CHNL: OFFSET: 900. SEC ELAPSED LIVE TIME: -0.00000228 KEV

UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	17 /R		SIGNA RROR		%ERROR
%-COPPER	511.0	404.	2610.	0.010	16	Ø.	.0002		2.3
Z-ANTIMONY	564.1	230.	61258.	Ø.799	r af	Ø.	.0039		0.5
%-ARSENIC	559.3	324.	436.	0.002	9	Ø.	.0002		7.6
%-ARSENIC	657.Ø	23.	60.	0.003	(3	Ø.	.0006		17.4
		(o <i>u</i>	SB		AS			AS
CNTS/UG/MIN	AT RD	141		34.6		73.2	26		8.8
CENTROID CH.		204		2256		2237			2629
HALF-LIFE		12.	.8 H	2.7 D		26.3	H		26.3
BACKGROUND	SPACING	50	L&R	8Ø L&R	30	L CH	2243	R	25L 19
BACKGROUND (CHANNELS	22	L&R	22 L&R	11	L 1	R		10 L8
PEAK CHANNE	LS	13		13		5			5

	1988:	31.	31.	26.	35.	29.	32.	30.	32.	40.
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	2006:	31.	35.	30.	23.	32.	24.	33.	32.	22.
	2015:	30.	27.	31.	38.	35.	36.	30.	27.	32.
-	2024:	39.	33.	34.	49.	35.	40.	45.	38.	यं यं र
	2033:	50.	55.	78.	97.	116.	158.	167.	230.	285.
	2042:	305.	279.	270.	315.	258.	239.	221.	158.	129.
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	2060:	33.	29.	25.	18.	28.	29.	30.	25.	23.
	2069:	30.	30.	20.	25.	26.	30.	30.	28.	19.
	2078:	23.	31.	24.	29.	27.	32.	16.	23.	24.
	2087:	25.	28.	35.	24.	33.	28.	25.	27.	27.
	2096:	28.	21.	34.	42.	31.	22.	32.	28.	22.
	2105:	25.	21.	26.	25.	33.	27.	30.	26.	28.

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FBI LABOATORY WASHIOTON DC LEAD ANALYSIS 14-FEB-89 06:04:31

QÎLA Siz06010 NC

SAMPLE MEIGHT: (UG) 15634.00 NIST RT4 5MIN ACTIVATION: 13-FEB-89 09:49:00 ACQUIRE DATE: 13-FEB-89 15:10:28 GEN 13 PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53 ELAPSED REAL TIME: 912. SEC KEV/CHNL: 0.2500000 -0.0000228 KEV ELAPSED LIVE TIME: 900. SEC OFFSET: 25. 22. 17. 23. 24. 34. 28. 17. 21. 2130: 28. 22. 26. 20. 25. 31. 2139: 26. 25. 31. 22. 28. 31. 18. 21483 38. 14. 18. 19. 21. 27. 31. 21. 29. 21. 2157: 25. 31. 21. 24. 28. 36. 29. 16. 28. 28. 21661 30. 21. 27. 26. 2175: 29. 24. 29. 28. 30. 18. 24. 22. 28. 25. 23. 31. 26. 26. 21842 15. 31. 25. 2193: 31. 25. 26. 21. 21. 20. 26. 25. 32. 32. 30. 27. 19 . 36. 34 . 2202: 25. . 4E 25. 30. 30. 18. 19. 34. 21. 33. 25. 2211: 22. 32. 28. 42. 35. 34. 28. 22202 34. 38. 41. 54. 60. 84. 106. 141. 132. 154. 2229 # 32. 2238: 135. 108. 68. 72. 69. 64. 71. 71. 76. 121 . 175. 294. 614. 1236. 2580. 4547. 7097 .. 9193. 2247 : 1224. 488. 162. 62. 2256:10138. 9438. 7374. 4898. 2661. 13. 2. 10. 15. 7. 9. 2265: 21. 8. 8. 7. 12. 12. 13. 11. 22743 13. 7. 11. 4. 12. 5. 13. 8. 2283# Ι. . 10. 7. 16. 47 ... 9. 7. 7. 11. 5 .. 22921 10. 6. 6. 9. 7. 4, 11. 2. 8. 2301: 9. 11. 10. 8. 7. 7. 6. 5. 2310: 11. 7 . 10. 7. 2319# aijk " 7. 5. 6. 6. 6. 9. 2328# 8. 6. 13. 9. 14. 11. 8. 11. 4). 7. 2. З. 2337 = 9. 7. 9. aif " 5. 9. 7. 9. 11. 2346 : 4. 6. 6. 7 . 2355: ÷. 8. 10. 6. 6. 6. ő. É. 5. 5. 8. 5. 8. 13. 23641 12. 8. 11. e.Feel ARSENIC ø.øøz9

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FBI LABORATORY WASHIMPTON DC LEAD ANALYSIS

14-FEB-89 Ø6:05:22

GIIB BIZØ6ØIØ NC

SAMPLE WEIGHT: (UG) 14852.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

GEM 13 ACQUIRE DATE: 13-FEB-89 15:25:53

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

KEV/CHNL: OFFSET: ELAPSED REAL TIME: 911. SEC 0.2500000

-0.0000228 KEV 900. SEC ELAPSED LIVE TIME: OFFSET:

UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCE	NTR.		SIGMA RROR		%ERROR
%-COPPER	511.0	382.	2355.	0.01	Ø2	ø.	.0003		2.5
Z-ANTIMONY	564.1	208.	58361.	0.80	39	Ø.	0040		0.5
Z-ARSENIC	559.3	324.	485.	0.00	35	Ø.	0002		7.0
Z-ARSENIC	657.0	27.	39.	0.00	23	Ø.	0006		24.9
		(o <i>u</i>	SB		AS			AS
CMTS/UG/MIN	AT RD	14.	1.6	34.6		73.2	?6		සි.සි
CENTROID CHA	4NNE L	20	ो, पो	2256		2237			2629
<i>HALF-LIFE</i>		12.	.8 H	2.7 D		26.3	Ħ		26.3
BACKGROUND S	SPACING	5Ø	L&R	80 L&R	30	L CH	2242	R	25L 19
BACKGROUND (CHANNELS	22	L&R	22 L&R	11	L 1	R		10 L&
PEAK CHANNEI	<u> </u>	13		13		5			5

Ü	1988:	27.	45.	39.	31.	39.	25.	28.	25.	24.
_	1997:	38.	27.	39.	26.	34.	27.	II.	"EE	32.
	2006:	30.	24.	28.	18.	32.	34.	27.	27.	26.
	2015:	26.	39.	24.	38.	30.	39.	36.	33.	32.
	2024:	23.	26.	31.	29.	34.	39.	37.	54.	36.
	2033:	47.	65.	£3.	69.	104.	115.	183.	196.	243.
0	2042;	254.	298.	262.	290.	238.	214.	180.	147.	117.
	2051:	90.	63.	€1.	37.	50.	35.	27.	4. 4	39.
	2060:	31.	22.	33.	29.	24.	32.	35.	21.	24.
	2069:	26.	29.	25.	22.	34.	16.	23.	21.	27.
	2078:	23.	32.	18.	32.	32.	22.	30.	25.	23.
	2087:	22.	13.	30.	30 .	21.	29 .	29.	16.	27.
	2096:	25.	28.	23.	28.	35.	22.	35.	19.	23.
	2105:	23.	24.	19.	27.	31.	19.	24.	.EE	16.

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FBI LABORTORY WASHIOTON DC LEAD ANALYSIS

14-FEB-89 06:05:43

QIIB 81206010 NC

SAMPLE WEIGHT: (UG) 14852.00 NIST RT4 5MIN ACTIVATION: 13-FEB-89 09:49:00 GEN 13 ACQUIRE DATE: 13-FEB-89 15:25:53 13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC CALIB DATE: KEV/CHNL: ELAPSED REAL TIME: 911. SEC 0.2500000 900. SEC -0.00000228 KEV ELAPSED LIVE TIME: OFFSET # 20. 31. 33. 15. 14. 21. 21. 28. 26. 2130: 17. 30. 2139: 20. 24. 22. 22. 28. 39. 16. 23. 23. 25. 33. 26. 2148: 24. 20. 16. 27. 19. 22. 28. 37. 19. 19. 26. 21. 30. 2157 : 23. 25. 30. 24. 11. 20. 23. 21. 23. 21661 28. 20. 2175: 25. 18. 25. 36, 21. 21. 24. 28. 21. 16. 21841 18. 23. 32. 27 . 21931 33. 24. 27. 22. 28. 18. ,2202: 24. 28. 28. 34. 41. 27. 25. 28. 25. 25. 29. 26. 28. 25. 31. 27 . 2211: 32. J.A. 34. 23. 32. 23. 31. 40. 2220: 26. 25. 2229# 32. 43. 63. 65. 97. 108. 130. 145. 166. 60. 2238: 152. 116. 81. 71. 72. 88. 96. 1244. 2464. 2247: 125. 147. 291. 580. 4353. 6571. 8806. 4726. 2586. 1171. 444. 158. 43. 2256: 9564. 8992. 7068. 7. 5. 7. 9. 3. 2265: 10. 15. 6. 15. 8. 14. 2. 7. 2. 8. 10 . 5. 3. 8. 2274: 7 . 8. 4. 9. 9. 11. 2283# 8. 8. 11. 7. 6. 6. ng ... 7. 4). " 2292# 8. 6. Ι. 2. 7. 8. 12. 5. 9. 5. ě. Ξ. 2301: 5. 7. 2310: aji " 8. 13. 6. 9. 5. . E 12. 2319 : ᆄ. " ei " 5 . 14. 7. 12. o 2328: 5. 9. 11. 11. 7. 14. 8. 5. 6. 2337# 5. 6. 7. 1 . 4 3. 5. 9. 6. 8. 9. 8. 8. 2346 # 6. 9. 6. 7. 1 -10. 4. 2355: 8. 6. 6. 23643 10. 12. 3. 11. 4. 10 . 7 . aif. S.

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, FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 Ø6:06:35

ozzc BIZBEBIB NC

SAMPLE WEIGHT: (UG) 14933.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 15:41:14 GEM 13

13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC CALIB DATE:

KEV/CHNL: 0.2500000 ELAPSED REAL TIME: 911. SEC

900. SEC -0.00000228 KEV ELAPSED LIVE TIME: OFFSETs

UNKNOWN SAMPLE REPORT

	PEAK					1 SIGMA	
ELEMENT	ENERGY	BKGND	AREA	CONCENT	T /R .	ERROR	ZERROR
%-COPPER	511.0	352.	2402.	0.010	57	0.0003	2.4
Z-ANTIMONY	564.1	197.	58720.	0.806	5	0.0040	Ø.5
%-ARSENIC	559.3	278.	484.	0.003	5	0.0002	6.7
Z-ARSENIC	657.0	22.	67.	0.004	Ø	0.0006	15.9
		•	cu	SB		AS	AS
CNTS/UG/MIN	AT RD	14.	1.6	34.6		73.26	8.85
CENTROID CH.	ANNEL	20	43	2256		2236	2627
HALF-LIFE		12	.8 H	2.7 D		26.3 H	26.3 H
BACKGROUND	SPACING	50	L&R	80 L&R	30	L CH 2243 R	25L 19 R
BACKGROUND	CHANNELS	22	L&R	22 L&R	11	L 1 R	10 L&R
PEAK CHANNE	LS	13		13		5	5

	1988:	32.	36.	25.	31.	34.	32.	28.	31.	30.
_	1997:	25.	27.	28.	30.	30.	30.	30.	29.	28.
	2006:	27 .	37.	22.	24.	31.	24.	39.	31.	28.
	2015:	32.	34.	30.	31.	28.	32.	33.	43.	35.
_	2024:	JJ.	41.	36.	35.	35.	26.	33.	35.	41.
	2033:	55.	65.	85.	90.	117.	121.	181.	217.	259.
	2042:	255.	268.	271.	235.	248.	216.	193.	173.	112.
	2051:	85.	71.	49.	45.	51.	56.	35.	35.	24.
	2060:	26.	24.	29.	19.	21.	19 .	31.	27.	31.
	2069:	22.	26.	. EE	35.	28.	34.	30.	32.	29.
	2078:	24.	21.	19	23.	31.	19.	26.	29.	23.
	2087:	27 .	21.	31.	20.	20 .	21.	21.	21.	28.
	2096:	26.	20.	35.	33.	34.	21.	24.	33.	28.
	2105:	19.	30.	16.	23.	30.	22.	19.	21.	24.

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FBI LABOATORY WASHIOTON DC

14-FEB-89 Ø6:06:48

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ACQUIRE PRESET	LIVE T	IMEs		Ø. SEC		DATES		EB-89 1	
ELAPSED ELAPSED			91 90		KEV OFF	Y/CHNL: SET:		2500000 0000228	
2130:	23.	23.	26.		26.	25.	15.	22.	26.
2139 :	28.	31.	30.	22.	20.	29.	19.	25.	15.
2148:	24.	24.	32.	21.	23.	28.	24.	22.	26.
2157 :	23.	19.	27.	33.	20.	20.	22.	18.	17 .
2166:	19.		19.	21.	22.	27 .	24.	25.	22.
2175:	29.		20.	22.	22.	10 .		26.	28.
2184:	21.		23.	21.	30.	23.	25.	23.	28.
2193:	25.		13.	25.	22.	30.	24.	17 .	37.
2202:	23.		19.	30.	12.	37.	28.	30.	22.
2211:	21.	26.	26.	23.	30.	32.	29.	25.	19.
2220:	22.		J1.	aj aj "	26.	26.	39.	27.	36.
2229:	29.		38.	67.	74.	115.	141.	138.	135.
2238:	148.		88.	57 ·	73.	52.	72.	85.	94.
2247;	109.		260.	548.		2428.		6703.	8642.
2256:	9758.	8994.	7125.	4820.	2595.	1268.	456.	171.	39.
2265:	18.	12.	10.	8.	11.	.El	6.	3.	14.
2274:	9.	7.	10.	8.	8.	7.	9.	8.	13.
2283:	7.	9.	4	7.	9.		7.	9.	9.
2292:	8.	4	4.	10.	8.	5.	4.	6.	8.
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2319#	9.	10 .	4.	~¥	8.	11.	6.	6.	8.
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2364:	10 .	6.	9.	2.	ద.	9.	6.	9.	6.
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FBI LABORY WASHIOTON DC LEAD ANALYSIS 14-FEB-89 06:07:39

GZA SIZØ6ØIØ NC

SAMPLE WEIGHT: (UG) 12510.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 15:56:35 GEN 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 909. SEC KEV/CHNL: 0.2500000

ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCENT	rR.	1 SIGMA ERROR	%ERROR
maps grown maps from mater filters garpet could broke could sale to				* 10.17 (10); 2004 (10.0) 1004 (1007 (1007 10))		as deems pained active enable despite grants despit patrons between section party party pa	gan burek goden kurid dhara dasab daman birank
%-COPPER	511.0	308.	1877.	0.0099	7	0.0003	2.7
%-ANTIMONY	564.1	188.	47195.	0.7760	7)	0.0042	Ø.5
%-ARSENIC	559.3	209.	303.	0.0026	5	0.0002	8.9
Z-ARSENIC	657.0	16.	39.	0.0028	3	0.0006	21.8
		•	D U	SB		AS	AS
CNTS/UG/MIN	AT RD	14.	1.6	34.6		73.26	8.8
CENTROID CHA	ANNEL	20	देखे	2256		2236	2628
HALF-LIFE		12	.8 H	2.7 D		26.3 H	26.3
BACKGROUND S	SPACING	50	L&R	8Ø L&R	30	L CH 2241 R	25L 19 i
BACKGROUND (CHANNELS	22	L&R	22 L&R	11	L 1 R	10 L&
PEAK CHANNE	18	13		13		5	5

	1988#	22.	25.	27 .	26.	29.	30.	33.	27.	33.
-	1997:	29 .	22.	25.	20 .	30.	24.	24.	21.	27.
	2006:	22.	32.	29.	20.	~ EE	25.	28.	21.	24.
	2015:	28.	21.	27.	29.	16.	26.	30.	27.	23.
	2024:	31.	12.	18.	28.	26.	28.	32.	42.	39.
	2033:	39 .	54.	50.	72.	85.	110.	125.	172.	178.
	2042:	222.	215.	234.	243.	185.	160.	124.	124.	93,
	2051:	61.	61.	56.	39.	.EE	17.	.EE	23.	24.
	2060:	31.	12.	19.	21.	22.	18.	25.	20.	31.
	2069:	30.	17.	23.	32.	13.	15.	21.	22.	26.
	2078:	26.	25.	24.	23.	18.	15.	29.	21.	22.
	2087:	22.	25.	25.	20.	18.	19.	20.	19.	15.
	2096:	22.	19.	17.	22.	14.	25.	16-	31.	26.
	2105:	18.	20.	28.	22.	23.	17.	23.	29.	17.

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LABORATORY MASHIMFTON FBI ANALYSIS LEAD

14-FEB-89 06:07:53

81206010 150

SAMPLE WEIGHT: (UG) 12510.00 13-FEB-89 09:49:00 NIST RT4 5MIN ACTIVATION: GEM 13 ACQUIRE DATE: 13-FEB-89 15:56:35 13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC CALIB DATE: KEV/CHNL: 0.2500000 ELAPSED REAL TIME: 909. SEC 900. SEC -0.00000228 KEV ELAPSED LIVE TIME: OFFSET: 24. 19. 18. 25. 16. 24. 17. 30. 17. 2130: 25. 19. 21. 27. 24. 2139: 17 . 23. 18. 12. 29. 18. 17. 24. 2148: 19. 27. 25. 14. 13. 11. 12. 17. 26. 2157 : 17. 25. 20. 18. 21662 26. 20. 27 . 20. 20. 21. 20. 16. 111 -2175: 30. 25. 23. 26. 16. 20. 19 . 25. 23. 20. 21. 20. 24. 18. 12. 22. 21. 29. 21841 20. 24 . 27 . 2193: 17. 13. 23. 25. 18. 27. 27. 14. 25. 18. 16. 17. 22. 13. 2202: 10 . 15. 22. 20. 21. 24. 21. 20. 21. 2211: 20. 29. 25. 20. 26. 20 . 22. 22. 23. 2220: JW. 56. 33. 87. 74. 85. 105. 115. 2229# 31. JJ. 55. 57 . 57. 2238: 101. 70. 62. 52. 56. 61. 449. 1031. 1919. 3494. 5317. 7015. 2247: 75. 133. 228. 2151. 963. J8J. 143. 32. 5750. 3901. 2256; 7614. 7396. 5. 6. 8. 2265: 9. 7 . 5 . 8. E. 13. 7. 7. 8. 9. 8. 22743 9. 12. 6. 11. 7. 7 . 7. 4 7. 5. 4. 3. 2283: 4. 51 . 12. 2292: 2. 5. 9. 11. 8. 2301: 11. 8. 3. 7 . 2. 7 . 5. 6. 3. 9. 7. 11. 7. аў. " 2310: 4). " 8. 11. 5. 2. 8. aif " 10% af y 5. 3. 2319: 3. 4 4. .. 8. 12. 11. 11. 7. 2328: 10 -8. 5. Ξ. 5. 8. 1. 6. 2337 # 10. 7. 8. 5. 3. Ξ. Ξ. 8. 2346: 7. 4. 8. 9. 2355# 1. 4 ... 7 . 6. 3. 51 x 3. 5. 8. 5. 2364: 8. 9. 7 . MARKET FREEDAY arr ar 217° 25° ARSENIC 0.0026 2598: 3. 5. 5. I. 3. 8. 4. 3. 7. 5. 4. 6. 3. 4. 3. 2607: 2. i.

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FBI LABORY MASHIOTON DC

14-FEB-89 06:08:44

GSB 81206010 NC

SAMPLE WEIGHT: (UG) 11776.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5NIN

ACQUIRE DATE: 13-FEB-89 16:11:55 GEN 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 909. SEC KEV/CHNL: 0.2500000

ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	ITR.	1 SIGMA ERROR	%ERROR
~~~~~~ %~COPPER %~ANTIMONY	511.0 584.1	271. 177.	1631. 43744.	Ø.ØØ9 Ø.766		0.0003 0.0043	2.9 Ø.6
%-ARSENIC %-ARSENIC	559.3 657.0	227. 14.	331. 46.	0.003 0.003		0.0003 0.0007	8.5 18.9
CNTS/UG/MIN CENTROID CH. HALF-LIFE BACKGROUND:	ANNEL	14. 20.	.8 H	SB 34.6 2256 2.7 D 80 L&R	3 <i>0</i>	AS 73.26 2236 26.3 H L CH 2243 /	AS 8.85 2629 26.3 H R 25L 19 R
BACKGROUND ( PEAK CHANNE	CHANNELS	22 13	L&R	22 L&R 13	11		10 L&R 5

•	1988:	23.	21.	26.	19.	26.	27.	25.	24.	23.
	1997:	21.	24.	16.	24.	17 .	26.	18.	21.	19.
	2006:	33.	19.	20 .	25.	28.	33.	20.	28.	29.
	2015:	24.	19.	29.	20.	14.	25.	27.	26.	26.
	2024:	18.	28.	35.	33.	27 .	25.	21.	22.	38.
	2033:	46.	41.	53.	61.	77.	87.	123.	148.	158.
	2042:	186.	200.	192.	175.	181.	153.	117.	99.	83.
	2051:	62.	59.	45.	35.	21.	29.	26.	24.	22.
	2060:	24.	25.	23.	16.	21.	20.	23.	21.	15.
	2069:	18.	22.	19.	13.	24.	19.	26.	13.	20.
	2078:	16.	23.	15.	18.	14.	25.	18.	15.	20.
	2087:	22.	20.	27.	14.	25.	20.	13.	28.	14.
	2096:	15.	12.	20.	18.	23.	26.	18.	25.	16.
	2105:	11.	20.	21.	29.	20.	29.	26.	17.	14.

# FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 06:08:57

@ZB BIRBSBIB NC

	SAMPLE ACTIVA		: ( UG 13-FE			NIST	RT4 5MI	N		
	ACQUIR	E DATE:	13-FE	B-89 16	:11:55	GEM 1	3			
	PRESET	LIVE T	IME: TIME: TIME:	90	Ø. SEC	CALIB	DATE:	13-F	EB-89 1	4:27:53
	ELAPSE	D REAL	TIME:	90	9. SEC	KEV	/CHNL:	ø.	2500000	
	ELAPSE	D LIVE	TIMES	90	Ø. SEC	OFF	/CHNL:	-0.	0000228	KEV
	2130:	15.	9.	17.			18.		13.	20.
	2139:	: 19.	16.	20.			18.		14.	16.
	2148:	24.	19.	17.		14.			15.	17.
	2157 :	: 13.	18.	16.	23.	19 .	15.	18.	18.	18.
	2166:	22.	21.	18.	15.	21.	19.	19.	25.	18.
	2175:		14.	21.	27.	17.	14.	17.	19.	14.
	2184:	. 17.	25.	20.	17 .	20.	19.	23.	14.	23.
_	2193:	: 17. : 15.	15.	20. 14.	19.	20. 27.	14. 19. 13.	21.	21.	27.
	2202:	20.	15. 18.	31.	14.	19.	13.	18.	28.	17 -
	2211:	22.	13.	18.	22.	15.	20.	25.	32.	24.
	2220:	: 28.		16.		20.	19.	20.	30.	30.
	2229:			42.			87.			
	2238;				48.					
	2247:		141.							
		7203.	A.3.39 .	4988.	3213.	1651.	770.	311.	96.	33.
	22651	14.	12. 7. 4. 5. 5.	5.	7.	6.	6.	10.	7.	4.
	2274	7.	7.	8.	11.	8.	12.	6.	7.	5.
	2283:	· A.	. 4s.	7	. ka	7.	<b>5.</b>	7.	5.	5. 9.
	22924	. 5 ₋	<i>5</i> , .	4	6	5 .	4 -	5.	6.	6.
	2301:	2.	5.	7.	7.	7.	ď.,	4.	10.	7.
	2310:	3.	6.	4.	6.	6.	6.	5.	5.	3.
	23191	7.			7.		2.		3.	5.
	2328						11.			7.
	2337				4.		5.			6.
	23462						4 -			4.
	2355:		2.	Zin	A .	7.	5.	7.		4.
	2364:	. A-	5.	7.	3.	<u> </u>	2.	7.	1.	
0	also sees that		~· .*	, ,	~	tur" of			- T	e- er
	۱۳۵۰ پیاد شاه کار	A NA T	retre	Tagen and						
	aler _a pr - en-	are et	ENIC			. #F#F	3 63 E			

2: 1. Ø. Ø. 6. 5. 0. 6. 1. 2598: 0. ¥., 7. 2. 6. 3. 5. 2607: 4 2. Ø ... 2. 1 . 3. 2616: 3. 2. 6. 6. 6. 13. 10 . 5. 1. 2625: 6. 6. 10 . 21. 6. 2634: 4. 3. 2. 귝.. 5. 2. 2. 4. 4. 2643: aji " 4. 3. 2. 4. 4 3. 1.

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## FBI LABORATORY WASHIOTON DC LEAD AMALYSIS 14-FEB-89 06:09:48

GZC SIZØSØIØ MC

SAMPLE WEIGHT: ( UG ) 11801.00

ACTIVATION: 13-FEB-89 @9:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 16:27:16 GEM 13

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

ELAPSED REAL TIME:

909. SEC KEV/CHNL: 0.2500000 900. SEC OFFSET: -0.0000228 KEV ELAPSED LIVE TIME:

#### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	7R.		SIGNA RROR 		%ERROR
%-COPPER	511.0	301.	1612.	0.009	3	Ø	.0003		3.0
Z-ANTIMONY	564.1	171.	44279.	0.776	Ø	Ø.	.0043		0.6
%-ARSENIC	559.3	199.	291.	0.002	7	Ø	.0002		9-1
Z-ARSENIC	657.0	13.	31.	0.002	착	Ø.	.0006		24.5
		(	o <i>u</i>	$s_B$		AS			AS
CHTS/UG/MIN	AT RD	14.	1.6	34.6		73.:	26		8.85
CENTROID CH.	ANNE L	20	<i>43</i>	2255		2236			2628
HALF-LIFE		12.	.8 H	2.7 D		26.3	Ħ		26.3 h
BACKGROUND .	SPACING	50	L&R	80 L&R	30	L CH	2241	R	25L 19 R
BACKGROUND		22	L&R	22 L&R	11	L1	R		10 L&F
PEAK CHANNE	LS	13		13		5	~		5

•	1988:	27.	29.	23.	27.	22.	25.	25.	20.	22.
	1997:	23.	30.	17	22.	28.	19.	17 .	23.	29.
	2006:	15.	25.	32.	20.	21.	18.	14.	26.	26.
	2015:	20.	27.	19 .	22.	36.	29.	25.	23.	20.
	2024:	26.	27.	15.	36.	26.	28.	28.	20.	47.
	20332	28.	54.	61.	62.	76.	115.	125.	155.	158.
	2042:	175.	202.	201.	178.	169.	145.	126.	88.	50.
	2051:	56.	56.	JJ.	37.	41.	19.	23.	21.	19.
	2060:	18.	24.	14.	19.	17.	15.	23.	31.	24.
	2069:	22.	21.	8.	27.	25.	27.	16.	21.	25.
	2078:	26.	23.	18.	23.	21.	18.	31.	19.	24.
	2087:	22.	19.	25.	28.	24.	23.	15.	18.	18.
	2096:	28.	18.	20.	13.	17.	25.	21.	16.	19.
	2105:	19.	26.	12.	7.	20.	18.	15.	21.	16.

z copper 0.0093

# FBI LABO ATORY WASHINGTON DC

14-FEB-89 06:10:01

81206010 NC

2139 : 2148 : 2157 : 2166 : 2175 :	22.	28. 16. 14.	22. 14. 18. 18.	19. 8. , 13.	18. 18. 17. 19.	17. 20. 21.	26. 22. 25.		15. 12.
2139: 2148: 2157: 2166: 2175: 2184:	25. 14. 21. 17. 22. 12.	19. 20. 22. 28. 16. 14.	14. 18. 18. 18.	19. 8. , 13.	18. 17.	20.	22.	15.	12.
2139: 2148: 2157: 2166: 2175: 2184:	25. 14. 21. 17. 22. 12.	19. 20. 22. 28. 16. 14.	14. 18. 18. 18.	19. 8. , 13.	18. 17.	20.	22.	15.	12.
2148: 2157: 2166: 2175: 2184:	14. 21. 17. 22. 12.	20. 22. 28. 16. 14.	18. 18. 18.	8. , 13.	17.				
2157 : 2166 : 2175 : 2184 :	21. 17. 22. 12. 15.	22. 28. 16. 14.	18. 18.	, 13.		134 10 15		1.1	31.
2166: 2175: 2184:	17. 22. 12. 15.	28. 16. 14.	18.		7 '-√		17.	19.	
2175: 2184:	22. 12. 15.	16. 14.	*** ***	7 AL		30.		19.	
2184:	12. 15.	14.			11.			23.	
	15.		14.	24.	15.	19.		19.	21.
		13.	20	24.	18.		12.	19.	10.
	1 4	13. 19.	20. 22.	23.	20.	16.	18.		19.
		21.	21.	1 =;	25.	16.	20.	19.	
			19.		21.			17.	
		30.			69.			97.	93.
			2.7	70	A A	A =:	F: 2	$A \mathcal{Q}$	22
2247:	91	69. 143.	279	595.	1100	2480	4/33	5717	7066.
2256:			4488	2715.	1477	58A	212	70.	
			3.		4.			3.	
				9.		7.			6.
	7.	9.		8.			1.		E.
2292#	7.	10.	12.	E;	2	6.	,	5.	
2301:	11.	. E	8.	5. 6. 4.	 =;	10.	3,	3.	
2310:	5.	4.	9,	Li +	9	a as a	8.	8,	
2319:			3.	4.	7.	6.		4)	
			4.			4.			8.
2337:	2.								5
2346:		₩ £	e e e	7. 25. 2	9		6.	8.	4.
2355:		6. 6.	e;	Ξ,	103	7	6. 7.	5.	4.
2364:	7.	£1.4	ند در. کند	10. 7. 5. 5.	7 27 2	3.	1.	<i>=</i> ;	é.
# 77 F. A.	J .4*	7.4	~~ **	0.3	~ ·	a		~ *	tu' a
ette et	4,4,7 J	rrrrrr	<b>*</b>	£29	"ist. "har "har di	s <i>g</i>			
مورسد. مورسد.		wzc		A. T. T.	.001				

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2607:	5.	3.	- <del></del>	5.	3.	5.	6.	4-	3.
2616:	1 .	4. A	4 .	6.	3.	1 -	5.	4.	6.
2625:	5.	11.	11.	5.	7.	10.	7.	ist _	5.
2634:	4.	3.	"E	Z.	8.	5.	.i	.E	aif "
2643:	4.	£\$ _	2.	2.	1 .	6.	5.	2.	nj

% ARSENIC 0.0024

# FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 Ø6:10:53

RED elegade nc

SAMPLE MEIGHT: ( UG ) 12674.00

NIST RT4 5MIN GEN 13 ACTIVATION: 13-FEB-89 09:49:00

ACQUIRE DATE: 13-FEB-89 16:42:37

CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC

909. SEC ELAPSED REAL TIME: 0.2500000

KEV/CHNL: OFFSET: ELAPSED LIVE TIME: 900. SEC -0.0000228 KEV

#### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	ITR.		SIGMA RROR		%ERROR	
<i>V-COPPER</i>	511.0	290.	1844.	0.008	39	Ø	.0003		2.9	
L-ANTIMONY	564.1	177.	47225.	0.772	?7	Ø	.0042		0.5	
<i>L-ARSENIC</i>	559.3	210.	267.	0.002	23	Ø	.0002		9.9	
<i>L-ARSENIC</i>	657.0	24.	23.	0.001	(6	Ø	.0006		37.1	
		(	ou .	SB		AS			AS	3
CNTS/UG/MIN	AT RD	143	( -6	34.6		73.	26		8.	85
CENTROID CH.	ANNE L	204	<b>\$</b> 3	2255		2236			2628	š
ALF-LIFE		12.	.8 H	2.7 D		26.3	Ħ		26.3	( H
3ACKGROUND	SPACING	50	L&R	80 L&R	30	L CH	2241	R	25L 19	R
3ACKGROUND	CHANNELS	22	L&R	22 L&R	11	L i	R		10 L	.&R
PEAK CHANNE	/ 8	13		1.3		5			5	

1988;	26.	21.	33.	32.	19.	26.	24.	32.	22.
1997:	20.	24.	13.	24.	21.	24.	22.	30.	33.
2006:	22.	21.	28.	23.	29.	24.	19 x	26.	20.
2015:	20.	19.	*35.	16.	26.	23.	24.	22.	27.
2024:	19.	16.	17 .	24.	34.	20.	20.	20.	37.
 2033:	42.	55.	71.	68.	74.	124.	135.	147.	165.
2042:	200.	187.	160.	189.	171.	147.	124.	111.	72.
2051:	74.	58.	47.	28.	34.	21.	21.	21.	26.
 2060:	23.	25.	15.	17 .	21.	19 .	19.	18.	28.
2069:	30.	27.	20.	25.	18.	20.	16.	24.	18.
2078:	20.	18.	17 -	19.	22.	28.	23.	24.	23.
 2087:	25.	20.	27.	23.	17.	25.	15.	19.	18.
2096:	10.	21.	17 .	21.	29.	23.	24.	29.	19.
2105:	26.	25.	19.	18.	22.	17.	14.	17.	23.

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## FBI LABOATORY MASHIOTON DC LEAD ANALYSIS

14-FEB-89 Ø6:11:06

Q3A 81206010 NC

		s ( 86		674.00					
		13-FE				RT4 5MI	V.		
<b>ACQUIRE</b>			B-89 16		GEM 1				
PRESET				Ø. SEC		DATEs			4:27:53
ELAPSE				9. SEC		/CHNL:	· · · · · · · · · · · · · · · · · · ·	2500000	
<i>ELAPSEI</i>	D LIVE	TIME:	90	Ø. SEC	OFF	SET :	-Ø.	<i>000</i> 0228	KEV
2130:	21.	18.	20.	11.	20.			22.	
2139 :	22.	18.	18.	11.	20.	17 -	23.	13.	20.
2148:	20.	៩.	24.	16.	24.	9.		15.	
2157:	12.	26.	25.	20.	19.	25.	29.	20.	
21662	21.	13.	18.	10 10 10	18.	17 .	17.	21.	
2175;	20.	30.	20.	15.	10 .	18.	20.	25.	
2184:	16.	15.	22.	21.	23.	18.	11.		19.
2193:	19.	20.	21.	28.	24.	20.	20.	20.	21.
2202:	15.	23.	15.	21.	14.	25.		17 .	21.
2211:	16.	17 .	21.	19.	27.	20.		24.	26.
2220:	21.	15.	20.			31.		21.	34.
2229:	18.	34.	42.	45.	64.	74.		92.	81.
<b>)</b> 2238:	84.	66.	49.	43.	56.	54.		67.	65.
2247:	106.	151.	290.	549.	1232.	2425.		6025.	7519.
22562	7804.	6906.	5047.	3075.	1611.	686.	235.	70.	22.
2265:	11.	11.				9.		13.	13.
2274:	6.	4.		4.	7.	8.	4	7.	7.
2283;	10.	7 .	7.	arj. "	6.	14.	8.	<u> </u>	π. Σ
2292:	3.		9.	7.	aif "	Ye.	8.	6.	
2301:	6.	6.	12.	13.	7.	6.		4 °	5.
2310:	5.	4.	5.	af a	7.	2.	8.	2.	8.
2319:	6.		2.	7	5.	5.	. 7.	£\$	5.
2328;	4) "	7.	11.	9.		18.		7.	4. E
2337:	6.	5.	5.	4.		aif a		6.	
2346:	4.	3.		6.	8.	2.		6.	€
2355:	8.	É.	7.	5.				3.	
2364:	5.	4.	7.	8.	1 .	Ø.	2.	ట్.	3.
4117-4F	ME MART	r prepa	The state of the s	427					

2598:	5.	5.	5.	5.	6.	2.	4.	8.	7.
2607:	2.	4.	2.	nt "	J.	3.	3.	8.	5.
26162	4.	3.	6.	4	2.	5.	4	in the second	10.
2625:	5	8.	10.	11.	8.	9.	1.	3.	3.
26345	5.		7.	3.	7.	5.	5.	2.	7.

2643: 4, 4, 3, 5, 4, 8, 2, 6, 3,

*5.2953* 

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## FBI LABORTORY WASHIDSTON DC LEAD ANALYSIS 14-FEB-89 Ø6:11:57

ae. SIZØSØIØ NC

SAMPLE WEIGHT: ( UG ) 13062.00

NIST RT4 5MIN ACTIVATION: 13-FEB-89 09:49:00

ACQUIRE DATE: 13-FEB-89 16:57:57 GEM 13

PRESET LIVE TIME: CALIB DATE: 13-FEB-89 14:27:53 900. SEC

KEV/CHNL: OFFSET: ELAPSED REAL TIMEs 910. SEC 0.2500000

ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	TR.	1 SIGMA ERROR	%ERROR
		uning superground proof street fertist constructed pitches o				acres acres places forces acress cores design cores cores acress acres acres acres	came order perm total more able array and
%-COPPER	511.0	298.	1753.	0.009	4	0.0003	2.8
Z-ANTIMONY	564.1	171.	47902.	Ø.762	6	0.0041	Ø.5
%-ARSENIC	559.3	215.	290.	0.002	الإنه (	0.0002	9.3
Z-ARSENIC	657.Ø	16.	50.	0.003	5	0.0006	18.3
		•	o <i>u</i>	SB		AS	AS
CNTS/UG/MIN	AT RD	14.	1.6	34.6		73.26	පි-පි
CENTROID CH	ANNEL	20	ch ch	2256		2236	2628
HALF-LIFE		12	.8 H	2.7 D		26.3 H	26.3
BACKGROUND	SPACING	5Ø	L&R	80 L&R	30	L CH 2241 R	25L 19
BACKGROUND	CHANNELS	22	L&R	22 L&R	11	L I R	10 L&
PEAK CHANNE	LS	13		13		5	.57

	1988:	30.	34.	24.	39.	28.	28.	23.	24.	22.
_	1997:	34.	21.	25.	26.	27.	24.	18.	25.	27.
	2006:	24.	24.	21.	20.	22.	33.	28.	28.	33.
	2015:	24.	36.	30.	22.	29.	32.	21.	22.	19 .
	2024:	23.	26.	28.	24.	25.	21.	30.	29.	39.
	2033;	37.	45.	66.	52.	82.	101.	145.	161.	197.
	2042:	204.	185.	214.	197.	164.	151.	131.	112.	89.
	2051:	58.	48.	42.	27.	30.	23.	28.	22.	16.
	2060:	28.	18.	27.	20.	17.	20.	21.	19.	20.
	2069:	26.	26.	16.	25.	24.	26.	20.	25.	15.
	2078:	21.	20.	26.	21.	23.	26.	24.	20.	13.
	2087:	18.	19 .	20.	21.	12.	17.	19 .	18.	18.
	2096:	19.	16.	24.	19.	15.	18.	16.	23.	21.
	2105:	21.	26.	22.	32.	17.	17.	26.	18.	21.

z copper ø.øøpa

# FBI LABORATORY MASHIOTON DC

14-FEB-89 06:12:10

03B 81206010 NC

	SAMPLE ACTIVA		: ( UG 13-FE			NIST	RT4 5MI	N		
	ACQUIR		13-FE			GEN 1	3			
	PRESET				Ø. SEC	CALIE	DATE:	13-F	EB-89 1	4:27:53
	ELAPSE	D REAL	TIMES	91	Ø. SEC	KEV	//CHNL:	Ø.	2500000	
	ELAPSE	D LIVE	TIME: TIME:	90	Ø. SEC	OFF	//CHNL: SET:	-Ø.	0000228	KEV
	2130:	15.	15.	12.	21.	20.	19.	16.	12.	21.
-	2139 =	27 .	16.	17.	14.	23.	17.	16.	18.	18.
	2148:	22.	8.	10.	18.	13.	19.	19.	18.	22.
	2157:	16.	12.	20.	15.	24.	11.	22.	13.	15.
_	2166:	20.	21.	19.		<i>i 4.</i>		11 .	22.	28.
	2175:	19.	16.	12.		16.	20.	17.	12.	20.
	21843	24.	22.	18.		16.	24.	18.	19.	23.
	2193:	20.	15.	26.	20.	20.	21.	16.	16.	26.
	2202:	22.	21.	17.	19.	20.	17.	18.	20.	12.
-	2211:	23.	15. 21. 11.	28.	20 . 19 . 19 .	20. 20. 23.	22.	23.	19. 16. 20. 20.	17.
	2220:	19.	32.	20.	24.	16.	38.	26.	31.	25.
	2229;	28.	32,	36.	52.	55.	74.			
Ü			68.					61.		
	2247 =						2301.			7687.
							742.			
	2265:	14.	12.	7.	9.	8.	10.	7 -	10.	6.
•	22743	6.	5.	6	5.	4	9.	4.	12 th 3.	6.
	2283:	3.	11.	10.	5.	9.	8.	10.	6.	7.
	2292#	5.	6.	6.	7.	4.	3.	11.	5.	2.
-	2301:	7. 7. 8.	6. 10. 9. 5.	nii	10.	10.	9. 8. 3. 3.	5.	Ë.	6
	2310:	8.	9,	9.	10.	~} <u>"</u>	₹.	6	4 J	6. 8.
Ü	2319:	3.	5.	2.	6	7.	10.	8.	6.	2.
	2328#	10.	8.	9,	9.	11.	5.	9.	9.	7.
	2337:		7.	44. "	5.	8.	6.	5.	5.	5.
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_	2355:						5.			8-
	23642		بر لإنه				7.			5.
0										
	distraction .		rrarra	<b>`</b>	527	"K"- "T ₁ "T"-" " 1	e e			
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2598:	6.	6.	4 -	2.	7.	0.	1.	2.	2.
2607:	3.	2.	2.	2.	7.	2.	6.	2.	0.
26165	4)	2.	3.	2.	0.	3.	2.	5.	5.
2625;	8.	13.	15.	9.	15.	13.	8.	7.	3.
2634:	2.	3.	4.	5.	1 -	(1 -	0.	***	n)
2643:	Ø	5.	1 x	8.	1 .	6.	3.	1.	÷

z arsenic - 0.0035

# FBI LABORATORY WASHIDSTON DC LEAD ANALYSIS

14-FEB-89 06:13:02

OBC SIZOGOIO NC

SAMPLE WEIGHT: ( UG ) 12719.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 17:13:18 GEM 13

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

ELAPSED REAL TIME: 0.2500000

909. SEC KEV/CHNL: 900. SEC OFFSET: 900. SEC -0.0000228 KEV ELAPSED LIVE TIME: OFFSET #

#### UNKNOWN SAMPLE REPORT

PEAK ENERGY	BKGND	AREA	CONCE	YTR.				%ERROR
511.0	275.	1723.	0.000	76	Ø	.0003		2.8
564.1	178.	46702.	0.765	76	Ø	.0041		Ø.5
559.3	244.	283.	0.001	25	Ø	.0002		9.9
657.0	23.	32.	0.000	23	Ø	.0006		27.9
	(	o <i>u</i>	SB		AS			AS
AT RD	14.	1.6	34.6		73.	26		8.85
ANNEL			2255		2236			2627
	12.	.8 H	2.7 D		26.3	H		26.3 H
SPACING	50	L&R	80 L&R	30	L CH	2242	R	25L 19 R
CHANNELS	22	L&R	22 L&R	11	L 1	R		10 L&R
S	13		13		5			5
	ENERGY 511.0 564.1 559.3 657.0 AT RD ANNEL	ENERGY BKGND  511.0 275. 564.1 178. 559.3 244. 657.0 23.  AT RD 14: ANNEL 20. EPACING 50 CHANNELS 22	ENERGY BKGHD AREA  511.0 275. 1723. 564.1 178. 46702. 559.3 244. 283. 657.0 23. 32.  CU  AT RD 141.6 ANNEL 2043 12.8 H SPACING 50 L&R CHANNELS 22 L&R	ENERGY BKGHD AREA CONCEI  511.0 275. 1723. 0.003 564.1 178. 46702. 0.763 559.3 244. 283. 0.003 657.0 23. 32. 0.003  CU SB AT RD 141.6 34.6 ANNEL 2043 2255 12.8 H 2.7 D SPACING 50 L&R 80 L&R CHANNELS 22 L&R	ENERGY BKGND AREA CONCENTR.  511.0 275. 1723. 0.0096 564.1 178. 46702. 0.7656 559.3 244. 283. 0.0025 657.0 23. 32. 0.0023  CU SB AT RD 141.6 34.6 ANNEL 2043 2255 12.8 H 2.7 D SPACING 50 L&R 80 L&R 30 CHANNELS 22 L&R 11	ENERGY         BKGHD         AREA         CONCENTR.         E.           511.0         275.         1723.         0.0096         0           564.1         178.         46702.         0.7656         0           559.3         244.         283.         0.0023         0           657.0         23.         32.         0.0023         0           AT RD         141.6         34.6         73.           ANNEL         2043         2255         2236           12.8 H         2.7 D         26.3           SPACING         50 L&R         80 L&R         30 L CH           CHANNELS         22 L&R         11 L 1	ENERGY         BKGND         AREA         CONCENTR.         ERROR           511.0         275.         1723.         0.0096         0.0003           564.1         178.         46702.         0.7656         0.0041           559.3         244.         283.         0.0025         0.0002           657.0         23.         32.         0.0023         0.0006           AT RD         141.6         34.6         73.26           ANNEL         2043         2255         2236           12.8 H         2.7 D         26.3 H           SPACING         50 L&R         80 L&R         30 L CH 2242           CHANNELS         22 L&R         11 L 1 R	ENERGY BKGND AREA CONCENTR. ERROR  511.0 275. 1723. 0.0096 0.0003 564.1 178. 46702. 0.7656 0.0041 559.3 244. 283. 0.0025 0.0002 657.0 23. 32. 0.0023 0.0006  CU SB AS AT RD 141.6 34.6 73.26 ANNEL 2043 2255 2236 12.8 H 2.7 D 26.3 H SPACING 50 L&R 80 L&R 30 L CH 2242 R CHANNELS 22 L&R 11 L 1 R

	1988:	25.	32.	27.	25.	12.	29.	21.	34.	19.
	1997:	24.	30.	23.	24.	22.	34.	32.	30.	19.
	2006:	19.	19	29.	31.	24.	23.	22.	36.	25.
	2015:	32.	24.	34.	26.	14.	20.	20.	10.	30.
	2024:	26.	33.	21.	25.	28.	31.	29.	33.	31.
	2033:	37.	41.	36.	59.	70.	108.	111.	163.	169.
0	2042:	214.	213.	210-	200.	169.	152.	117 .	102.	61.
	2051:	63.	46.	44.	35.	22.	33.	27.	21.	19.
	2060:	23.	25.	18.	14.	18.	20.	10.	21.	15.
	2069:	13.	29.	17.	22.	19.	24.	28.	19.	19.
	2078:	22.	27.	27.	22.	23.	20.	22.	18.	19.
Δ	2087:	23.	15.	13.	14.	15.	23.	24.	15.	24.
	2096:	14.	17.	14.	21.	19.	28.	25.	25.	25.
	2105:	15.	15.	24.	16.	<i>i 4.</i>	24.	23.	24.	22.

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## FBI LABORY WASHI FTON DC LEAD ANALYSIS 14-FEB-89 06:13:15

03C 81206010 NC

ACTIVAT	ION: DATE: LIVE T REAL	TIME:	3-89 <i>0</i> 9 3-89 <i>1</i> 7	:49:00 :13:18 0. SEC 9. SEC	GEM 1 CALIB	DATE:	13-F Ø.	EB—89 1 2500000 0000228	
2130 :	19.	15.	27.	22.	16.	18.	17.	15.	24.
2139 s	20.	18.	16.	12.	15.	17.			
2148:	25.	19.	22.	14.	19.	22.		18.	
2157:	20.	24.	17.	18.	19.	13.		14.	
2166:	20.	13.	26.	16.	24.	19.		27.	
2175:	20.	18.	12.	15.	26.	17.		15.	
2184:	18.	11.	26.	20.	32.		21.	17.	
2193:	21.	26.	18.	13.	11.	19.		17.	
2202:	20.	22.	18.	24.	25.	18.		27.	23.
2211:	26.	19.	20.	20.	14.			18.	
2220:	20.	19.	17.	18.	26.			31.	
2229:	33.	29.	43.	53.	55.	69.		91.	100.
	89.	67.	57.	73.	38.	56.		71.	
2247:	89.	141.		497.					
2256:		7021.	5203.		1762.			84.	25.
2265:	10.	10.	6.	5.	4, 4, 4, 4,	8.	4.	7.	5.
2274:	3.	11.	4.		5.	10.		5.	6.
2283:	5. 5.	3.	7.	10.	4,	11.	5.		5,
2292:	9.	5.	9.	17.	6.	5.		9.	
2301:	9.	1	9.	7.	2.	10.			5.
2310:	2.	6.	5.	3.	2.	3.	1.	6.	8.
2319 s	ali a ali a	3.	5.	చ. ట.	8.	8.	3.	5.	8.
2328:	10.	6.	7.	6. 6.	9.	11.		9.	
2337#	7.	4. "	1.	9.		3.		2.	8.
2346:	4	-T -	6.	7.	5,	5.		7.	
2355:	3.	5. 5.	10.	6.	2,	5.			
2364:	2.	7.	7.	6.	.ee. .ee.	3.	6.	3.	5.
		r McM							
Jr.18r J.			•	p. Floring	41E- 2- 7002	- 100			
ater ger affekter aft	qæse	eatc							
2500-		277	,q	c	5.	o	A	2.	9.
2598:	3. 2.	5. 2.	4 . 1 .	5. 4.	<i>□</i> 4.	9. 2.	4. 8.	3.	4.
2607 : 2616 :	<i>Z -</i> 7 -	 3.	9.	7. 2.	4. 2.	2. 5.	5.	7.	7. 8.
						,			
2625: 2634:	7. 2.	11. 5.	9. 9. 1.	16. 5.	11. Ø.	5. 4.	5. 5.	6. 3.	4. 6.

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# FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 06:14:06

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SAMPLE WEIGHT: ( UG ) 13502.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

GEN 13 ACQUIRE DATE: 13-FEB-89 17:28:39

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

ELAPSED REAL TIME: 0.2500000

909. SEC KEV/CHNL: 900. SEC OFFSET: -Ø.ØØØØ228 KEV ELAPSED LIVE TIME: 900. SEC OFFSETs

### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	TR.	1 SI ERR		%ERROR
~~ %copper	511.0	309.	4218.	0.022	'aj.	Ø. ø	>@@4	1.8
Z-ANTIMONY	564.1	161.	47387.	Ø.733	-		040	0.5
%-ARSENIC	559.3	228.	605.	0.005	Ø	0.0	1003	5.5
Z-ARSENIC	657.0	16.	75.	0.005	1	0.0	0007	14.0
		(	$\circ u$	SB		AS		AS
CNTS/UG/NIN	AT RD	143	(.6	34.6		73.26		8.8
CENTROID CHA	ANNEL	20	k at	2256		2236		2627
HALF-LIFE		12.	.8 H	2.7 D		26.3 h	1	26.3
BACKGROUND S	SPACING	50	L&R	8Ø L&R	30	L CH 2	243 R	25L 19
BACKGROUND C	CHANNELS	22	L&R	22 L&R	11	L 1 F	?	10 L&
PEAK CHANNEL	is:	13		13		5		5

	1988:	28.	.IE	25.	24.	19.	20.	27.	26.	30.
-	1997:	42.	29.	23.	23.	17.	32.	30.	22.	24.
	2006:	23.	24.	29.	24.	25.	18.	19.	28.	22.
	2015:	37.	27.	24.	29.	21.	30.	31.	29.	19 .
	2024:	29.	32.	35.	31.	27.	37.	38.	51.	55.
	2033:	54.	88.	95.	113.	183.	234.	270.	339.	394.
	2042:	434.	474.	466.	468.	415.	336.	282.	225.	190.
	2051:	126.	102.	75.	56.	62.	37.	37.	27.	26.
	2060:	31.	27.	17.	19.	22.	34.	24.	17.	26.
	2069:	13.	27.	26.	14.	21.	18.	20.	25.	18.
	2078:	29.	25.	18.	18.	20.	16.	28.	13.	28.
	2087:	14.	21.	29.	14.	19.	16.	18.	22.	22.
	2096:	20.	20.	20.	27.	19.	27	21.	22.	15.
	2105:	17.	34.	17.	18.	14.	22.	26.	21.	21.

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#### FBI LABORATORY WASHINGTON SISYIRNA LEAD

14-FEB-89 06:14:19

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SAMPLE WEIGHT: ( UG ) 13502.00 13-FEB-89 09:49:00 NIST RT4 5MIN ACTIVATION: ACQUIRE DATE: 13-FEB-89 17:28:39 GEN 13 13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC CALIB DATE: 0.2500000 ELAPSED REAL TIME: 909. SEC KEV/CHNL: 900. SEC OFFSET: -0.0000228 KEV ELAPSED LIVE TIME: 23. 22. 17. 20. 19. 25. 17. 21. 21. 2130: 20. 152 14. 22. 2139: 14. 30. 21. 14. 22. 23. 28. 24. 17. 27 . 22. 25. 2148: 26. 16. 23. 16. 15. 15. 21. 18. 2157: 18. 16. 15. 23. 21. 15. 17' . 33. 21. 23. 13. 2166: 17. 18. 19. 25. 25. 2175: 18. 21. 14. 16. 22. 21. 18. 26. 18. 18. 27 . 18. 2184: 18. 19. 23. 20 . 15. 21. 21. 2193: 18. 22. 15. 23. 17. 25. 19. 18. 31. 17 -2202: 17 . 23. 25. 29. 25. 18. 21. 16. 23. 16. 2211: 25. 27. 18. 23. 29. 25. 30. 24. 2220: 18. 125. 39. 43. 69. 80. 164. 182. 166. 2229 # 26. 53. 75. 2238# 147 . 115. 73. 71. 53. 51. 70. 2169. 7268. 2247 : 94. 161. 276. 546. 1101. 3838. 5787. 3394. 1783. 857. 310. 76. 2256: 7955. 7068. 5472. 5. 5. 2265# 9. Ι. 2. 8. £ .. 11. 8. 4. 8. 2 . 5. 8. 13. 2274: 5. 5. 4. 7. 3. 5. 5. 2283: 9, 8. 4. 4 5. 9. 5. 5. 8. 4. 8. 2292: 5. 8. 12. 9. 7 . 3. 6. 2301: 6. J., 5. 5. 5. 3. 8. 2310: 14. 9. 3. 5. 10. a\$ ... ±ÿ' ∓ 3. 2319: 100 9. 2328: 4. 5. 9. 8. 7. 10. 8. . T. 9. 5. 6. 4. 2337 : 3. 1 . ë. 4. 5. 3. 5. 7. 8. 2. 2346# 6. .i .. 2. 2. 9. i. 2355# 2. 13. 7. 3. E. . E. 5. 4., 3. 23641 3.

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*6. 6.655* ARSENIC

4. aik " 2. 2. 2. 2598: -4. 2. aÿ _ 5. 4. 5. 2. 2607 : 6. ij. 4. 2. 6. 1. 2. 5. 4. 7, 12. 26161 6. Ξ. ᆄ... 2625 \$ 16. 16. 22. 18. 19. 13. 6. 7. , ... 3. 3. 5. 2. 26341 2. 2. 3. ć., 2643: 2. 4. 5. 2.

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## FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 06:15:11

CP-FE BIZØSØIØ MC

SAMPLE WEIGHT: ( UG ) 14398.00

NIST RT4 5MIN ACTIVATION: 13-FEB-89 09:49:00

ACQUIRE DATE: 13-FEB-89 17:43:59 GEN 13

CALIB DATE: 13-FEB-89 14:27:53 900. SEC PRESET LIVE TIME:

ELAPSED REAL TIME: 910. SEC 0.2500000

KEV/CHNL: OFFSET: 900. SEC -0.0000228 KEV ELAPSED LIVE TIME:

#### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERG		ND	AREA	, <b>(</b>	ONCEN	TR.		SIGMA ERROR		%ERROR
	***************************************				,						
%-COPPER	511.	Ø 3	18.	4374.		0.022	1	5	0.0004		1.7
Z-ANTIMONY	564.	1 1	93.	50197.		0.730	9	3	0.0039		Ø.5
%-ARSENIC	559.	3 2	74.	589.		0.004	6		0.0003		5.8
Z-ARSENIC	657 .	Ø	25.	62.		0.004	Ø	!	0.0007		17.3
			Cl	,		SB		$\mathcal{A}$	c c		AS
0 UT 0 110 111 T	u ar or					చట (శివత			26		7.3 8.85
CNTS/UG/MI			141.		-						
CENTROID C	HANNEL		2043		225			223			2629
<i>HALF-LIFE</i>			12.8	• • •	2.7			26.		_	26.3 }
BACKGROUND				.& <i>R</i>	80	L&R	30		H 2242	K	25L 19 A
BACKGROUND	CHANNEL	S		.& <i>R</i>	22	L&R	11		1 R		10 L&F
PEAK CHANN	ELS		13		$I \mathcal{J}$			5			5
ı											
) 1988: 3	Ø. 26	. 32.	.28	Ru 23	ζ.,	23.	•	28.	22.		28.

	1988:	30.	26.	32.	28.	23.	23.	28.	22.	28.
_	1997 #	26.	29.	21.	20.	22.	35.	25.	27.	21.
	2006:	24.	27.	22.	34.	28.	27.	29.	26.	19.
	2015:	29.	33.	29.	26.	29.	22.	28.	17.	31.
	2024:	26.	28.	38.	30.	38.	38.	41.	5 i .	66.
	2033:	60.	76.	100 .	122.	182.	221.	280.	376.	408.
	2042:	462.	469.	483.	466.	436.	366.	306.	237.	171.
	2051:	145.	96.	67.	53.	at at	38.	30.	30.	27.
	2060:	31.	25.	25.	22.	31.	21.	22.	19.	18.
	2069:	29.	37.	21.	19.	23.	17.	35.	20.	15.
	2078:	21.	28.	24.	23.	40.	15.	20.	23.	14.
	2087:	23.	25.	15.	22.	24.	18.	25.	25.	15.
	2096:	37.	21.	16.	28.	20.	26.	20.	21.	18.
	2105:	28.	27.	28.	17 -	25.	23.	25.	23.	19.

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## FBI LABOATORY WASHINGTON DC LEAD ANALYSIS 14-FEB-89 06:15:24

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SAMPLE WEIGHT: ( UG ) 14398.00 13-FEB-89 09:49:00 NIST RT4 5MIN ACTIVATION: GEN 13 ACQUIRE DATE: 13-FEB-89 17:43:59 13-FEB-89 14:27:53 900. SEC CALIB DATE: PRESET LIVE TIME: KEV/CHNL: 0.2500000 ELAPSED REAL TIME: 910. SEC 900. SEC -0.0000228 KEV ELAPSED LIVE TIME: OFFSETs 24. 23. 18. 15. 20. 30. 13. 17. 18. 2130: 19. 25. 15. 26. 16. 2139 # 23. 17. 26. 18. 26. 19. 22. 23. 2148: 21. 18. 18. 17. 24. 21. 23. 27. 16. 23. 2157 : 16. 26. 13. 16. 25. 25. 21. 31. 16. 26. 21662 28. 17 -27. 2175: 24. 25. 16. 20. 19. 20. 17. 16. 20. 18. 25. 17. 25. 21. 19. 17. 21843 18. 21. 2193: 18. 23. 12. 18. 23. 13. 26. JJ. 25. 25. 20. 29. 30. 20. 22. 17. 24. 2202: 29. 19. 21. 17. 20. 19. 16. 18. 2211: 27. 27. 29. 25. 25. 26. 20. 23. 28. 33. 2220: 161 56. 105. 149. 161. 146. 2229: 46. 47. 53. 45. 51. 92. 2238; 139. 99. 83. 70. 42. 66. 98. 279. 564. 1183. 2398. 4174. 6046. 7640. 2247 \$ 153. 1976. 849. 313. 97. 23. 2256: 8325. 5684. 3672. 7566. 7. 10. 12. 7. 6. 8. 22652 14. 6. 5. 7. 5. 5. 7. 7. 6. 4. 4. 2274: 8. 9. 9. 2283# 7. 7. £ ... 9. 7. 8. 6. S. aif a 11. 7. 2292: 8. 6. 4 6. ير الإند 7. 8. 8. 2301: 6. 10 -1 . 44. ... 6. 7. 7. 4. 5. 5. 5. 5. 11. 2310: 3. 6. ij " 7. 4. 4j. " 5. 4. 10. 2319 : 6. 9. 13. 2328 # 8. 10 -...). _ 7. 10. 6. 13. 2. 8. . E 4. Ġ. Ι. 2337 # 14. 8. π.Ε. 7. 5. 5. ₩. αÏ., 9. 2346: 2. a). " 7. 4 7. 5. 3. 5. 4. 3. 2355# 8. 6. 7. 7. 7. 23642 7. 5. 0. 3. ᆄ... AND FREEDING e. Fee 4111° 37° ø.øøta alle de ARSENIC 4. 7. 2. 2598: 6. 4. 2. 5. 2. 8. 0. 5. 7. 7. 3. 4. 2607: 2 . J. 6. 1. 8. 8. 2616# 4. 3. 4. 3. 6. 15. 10. 16. 17. 24. 15. 15. 2625: 10. 5. 6... Ø .. 3. 4. 2634: 3. 5. 8. 6.

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### FBI LABORATORY WASHINGTON DC LEAD ANALYSIS 14-FEB-89 Ø6:16:15

SIZØSØIØ NC

SAMPLE WEIGHT: ( UG ) 13034.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 17:59:20 GEM 13

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

ELAPSED REAL TIME: 909. SEC 0.2500000

KEV/CHNL: OFFSET: 900. SEC -0.0000228 KEV ELAPSED LIVE TIME:

### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCEN	TR.	1 SIGMA ERROR	%ERROR
%-COPPER %-ANTIMONY	511.0 564.1	312. 167.	3981. 45196.	Ø.022 Ø.728	-	0.0004 0.0040	1.8 Ø.5
Z-ARSENIC Z-ARSENIC	559.3 657.0	209. 21.	590. 58.	0.005 0.004		0.0003 0.0007	5,5 17,4
CNTS/UG/NIN CENTROID CH HALF-LIFE BACKGROUND BACKGROUND PEAK CHANNE	ANNEL SPACING CHANNELS	14. 20	.8 H L&R	SB 34.6 2256 2.7 D 80 L&R 22 L&R 13	3Ø 11	AS 73.26 2236 26.3 H L CH 2242 R L 1 R	AS 8.85 2627 26.3 H 25L 19 R 10 L&R 5

1988:	20.	36.	21.	24.	16.	33.	33.	34.	28.
1997 #	23.	21.	30.	23.	JJ.	22.	25.	28.	28.
2006:	30.	23.	34.	24.	30.	25.	31.	24.	28.
2015:	29.	24.	35.	26.	25.	32.	17 .	26.	29.
2024:	24.	29.	28.	29.	34.	35.	37.	47.	51.
2033:	54.	69.	95.	136.	165.	229.	292.	313.	376.
2042:	452.	435.	438.	387.	427.	336.	251.	192.	143.
2051:	113.	72.	68.	54.	49.	31.	26.	26.	31.
20602	21.	27 .	12.	20.	17.	23.	26.	25.	23.
2069:	19.	26.	29.	13.	20.	15.	17.	21.	14.
2078:	20.	21.	11.	15.	17.	20.	25.	21.	22.
2087:	21.	25.	31.	22.	19.	12.	15.	29.	22.
2096:	26.	21.	17.	16.	17 .	24.	22.	22.	25.
2105:	21.	16.	19.	17.	20.	17.	12.	18.	22.

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## FBI LABOATORY MASHIFTON DC LEAD ANALYSIS 14-FEB-89 06:16:29

Q4C 81206010 NC

SAMPLE MEIGHT: ( UG ) 13034.00 13-FEB-89 09:49:00 NIST RT4 5MIN ACTIVATION: GEM 13 ACQUIRE DATE: 13-FEB-89 17:59:20 CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC 0.2500000 ELAPSED REAL TIME: 909. SEC KEV/CHNL: 900. SEC ELAPSED LIVE TIME: OFFSETs -0.00000228 KEV 24. 19. 22. 25. 16. 18. 21. 18. 2130: 20. 19. 17. 2139 : 14. 20. 20. 21. 15. 13. 20. 18. 21. 23. 25. 28. 15. 2148: 20. 21. 16. 12. 18. 15. 16. 16. 13. 24. 19 . 21. 20. 18. 19. 2157: 16. 10. 9. 28. 2166: 15. 21. 20 . 22. 23. 14. 23. 21. 29. 2175: 31. 19. 9. 25. 26. 21. 18. 18. 22. 2184: 16. 18. 2193: 12. 17' . 24. 26. 16. 27. 13. 15. 16. 2202: 17. 24. 14. 19. 15. 27. 18. 22. 18. 17. 30. 2211: 22. 19. 24. 24. 23. 20. 29. 27. 25. 22. 31. 19. 39. 27 . 2220: 21. 100. 143. 2229: 22. 29. .39. 70. 142. 151. 184. 85. 56. 60. 2238: 137. 109. 48. 60. 54. 65. 514. 1050. 2158. 3601. 5496. 6921. 2247: 100. 123. 241. 3301. 1718. 747. 262. 85. 31. 2256: 7525. 6858. 5212. 5.
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3. 4. 5. 7. 2274: 8. 7. 2 . 7. 9. 7. 7. 5. 22831 4j. " 2. 4. 2292: 8. 23011 "E 3. 2310: 3. 8. 2319 = 3. 2328: 8. 5. 4. 6. 4. 3. 7. 2337: 3. 6. 5. 6. 7. 23462 É. 7. 3. 4. 8. 2355# 2364: 2. 3. 5. 6. 6. 6. amt zhcht-.tr.r ARSEMIC 1. 5. 2. 4. 8. 5. 2598: 6. 1 . 6. 3. 3. 3. 8. 8., 5. 2607: 2. ail a aif. 5. 4. aik . 5. 6. 26162 7. 3. 5. 2625 # 18. 13. 15. 15. 18. 13. 11. 10. 5. 5. 5. 3. 2. 7. 4. J 26342 4 ...¥ ... 3.

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## FBI LABORTORY WASHIOTON DC LEAD ANALYSIS 14-FEB-89 06:17:20

05A 81206010 NC

SAMPLE WEIGHT: ( UG ) 13203.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 18:14:41 GEN 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 908. SEC KEV/CHNL: 0.2500000

) ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCE	NTR.		SIGMA RROR	%ERROR
%-COPPER	511.0	256.	1748.	0.00	99	Ø.	.0003	2.8
Z-ANTIMONY	564.1	163.	42480.	0.67	82	Ø.	.0038	0.6
<i>X-ARSENIC</i>	559.3	199.	109.	9.4351	E-04	1.5	9465E-Ø4	20.6
Z-ARSENIC	657.Ø	16.	22.	0.00	16	Ø.	.0005	33.5
		(	o <i>u</i>	SB		AS		AS
CNTS/UG/MIN	AT RD	141	1.6	34.6		73.3	26	8.
CENTROID CH	ANNE L	20	<b>\$3</b>	2256		2237		2628
HALF-LIFE		12.	.8 H	2.7 D		26.3	Н	26.0
B <i>ACKGROUND</i> 3	SPACING	50	L&R	80 L&R	30	L CH	2242 R	25L 19
BACKGROUND (	CHANNELS	22	L&R	22 L&R	ΪÏ	L 1	R	10 1
PEAK CHANNEL		13		13		5		5

1988:	28.	21.	21.	22.	26.	17.	26.	21.	20.
 1997:	30.	17.	20.	22.	21.	21.	19.	28.	26.
2006:	24.	30.	29.	31.	26.	22.	24.	20.	15.
2015:	22.	24.	16.	24.	21.	22.	22.	19.	20.
2024:	23.	25.	32.	25.	23.	19.	19.	33.	31.
2033:	38.	41 -	70.	77.	82.	114.	152.	147.	175.
2042:	178.	200.	187.	185.	179.	179.	110.	116.	68.
2051:	62.	49.	40.	34.	32.	22.	20.	27.	21.
2060:	15.	19.	32.	18.	18.	16.	13.	15.	23.
2069:	19.	20.	12.	27.	19.	18.	21.	32.	16.
2078:	15.	16.	17.	11.	22.	18.	19.	17.	21.
2087:	18.	11.	12.	18.	13.	19.	22.	17 -	22.
2096:	18.	16.	17.	22.	17.	17.	17.	19 -	16.
2105:	15.	12.	25.	18.	17.	23.	15.	12.	´ 18.

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Bullet Lead-114-95-246207

## FBI LABO ATORY WASHINGTON DC LEAD ANALYSIS 14-FEB-89 06:17:34

05A 81206010 NC

SAMPLE WEIGHT: ( UG ) 13203.00 NIST RT4 5MIN ACTIVATION: 13-FEB-89 09:49:00 13-FEB-89 18:14:41 GEM 13 ACQUIRE DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME: 900. SEC CALIB DATE: ELAPSED REAL TIME: 908. SEC KEV/CHNL: 0.2500000 -0.00000228 KEV ELAPSED LIVE TIME: 900. SEC OFFSET # 23. 18. 21. 18. 18. 20 . 18. 16. 21. 2130: 26. 15. 22. 24. 8. 10. 16. 16. 2139: 21. 19. 19. 23. 16. 25. 15. 21481 10 . 15. 24. 17. 12. 18. 25. 15. 2157: 24. 18. 18. 19. 15. 18. 15. 22. 19. 2166# 16. 21. 16. 19. 17. 11. 18. 2175 # 17' . 20. 21. 21 . 16. 22. 19 . 14. 21. 21. 26. 21841 15. 15. 20. 23. 15. 24. 2193: 19. 21. 15. 12. 19. 26. 21. 16. 15. 15. 22. 2202: 14. 21. 26. 18. 19. 19. 11. 21. 20. 20. 16. 19 -2211: 12. 18. 25. 21. 20. 18. 26. 2220: 25. 25. 13. 49. 20. 34. 42. 42. 37. 60. 2229# 26. 20. 2238: 50. 61. 45. 43. 41. 48. 65. 50. 63. 5105. 87. 126. 235. 455. 1008. 1938. 3395. 6604. 2247: 1658. 753. 256. 94. 31. 2256: 7075. 6336. 4857. 3203. 5. 5. siji " 4. 7. 7. 8. 2265# 8., 8. 7. 5. 5, 7 . 7. 8. 4. 8. 2274# 8. 4. 5. 7. 2283: 4. 5. 8. 3. 12. 6. 2. aif " 3. aff. Ι., 2292# 9 . 5. 6. 7. 5. 2. 5. 3. 2301: 1 . 4. 8. 6. 7. af a 6. 7. 2. 2310: aj " 2. 1 . 5. 8. 5. · 8. 2. 3. 23193 3. 8. 5. 2328: 7. 8. 6. S. 6. 11. 9. 7 . 8. 4. 3. 2. 2337 \$ 2. 1. Ξ. É., 5. 2. 2346# 7 . 0. 6. 6. 2. 8. 7. 2. 8. 6. 3. 7 . 2355# 3. 5. 7. 6. 7. E., 11. 23641 7. 8. e. e pe AMFINONY ø.øøøø ARSENIC 5. 2. 3. 3. 2. 5. 4. 6. 2598: 1 . 2607: 2. 4. 12. 3. 4 2. 3. 6. 2x

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# FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 Ø6:18:25

Q 5 B BIZBEBIB NC

SAMPLE MEIGHT: ( UG ) 13084.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 18:30:02 GEN 13

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

KEV/CHNL: OFFSET: ELAPSED REAL TIME: 908. SEC 0.2500000

900. SEC -0.0000228 KEV ELAPSED LIVE TIME: OFFSET:

#### UNKNOWN SAMPLE REPORT

E <i>LEMENT</i>	PEAK ENERGY	BKGND	AREA	CONCEN	iTR.	1 SIGNA ERROR	%ERROR
%-COPPER	511.0	275.	1773.	0.010	73	0.0003	2.8
%-ANTIMONY	564.1	173.	41737.	0.674	12	0.0038	0.6
<i>X-ARSENIC</i>	559.3	204.	111.	9.70498	-04	1.9995E-Ø4	20.6
Z-ARSENIC	657.0	20.	12.	8.70938	-04	5.2396E-04	60.2
CNTS/UG/MIN CENTROID CHA HALF-LIFE BACKGROUND S BACKGROUND C	ANNEL BPACING	14. 20. 12. 50	CU 1,6 43 .8 H - L&R - L&R	SB 34.6 2256 2.7 D 80 L&R 22 L&R	3Ø 11	AS 73.26 2236 26.3 H L CH 2240 R L 1 R	AS 8.85 2628 26.3 H 25L 19 R 10 L&R

•	1988:	23.	17.	15.	24.	28.	30.	27.	21.	31.
-	1997:	17.	23.	19.	30.	14.	21.	18.	24.	23.
	2006:	19.	15.	27.	18.	19.	23.	22.	25.	25.
	2015:	22.	21.	20.	22.	25.	22.	33.	17.	23.
_	2024:	19.	23.	16.	20.	28.	22.	24.	32.	34.
	2033:	42.	41.	60.	43.	82.	83.	137.	162.	194.
	2042:	214.	200.	221.	172.	175.	171.	130.	107.	81.
	2051:	61.	60.	43.	46.	32.	J. 44	23.	12.	20.
	2060:	17.	19.	24.	16.	23.	20.	23.	10.	23.
	2069:	21.	20.	21.	18.	25.	16.	13.	19.	22.
	2078:	12.	16.	21.	16.	20.	19.	24.	19.	20.
	2087:	14.	22.	16.	20.	16.	14.	21.	20.	13.
	2096:	21.	28.	19.	12.	22.	14.	16.	20.	23.
	2105:	12.	19.	24.	23.	19.	19.	26.	24.	20.

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Bullet Lead-116-95-246207

# FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 Ø6:18:38

Q5B SIZØSØIØ NC

ACTIVAT ACQUIRI PRESET ELAPSET	TION:	TIMEs	9-89 <i>0</i> 9 9-89 <i>18</i>	:49:00 :30:02 0. SEC 8. SEC	GEM 1 CALIB KEV	RT4 5MI) 3 : DATE: !/CHNL: !SET:	13-F Ø.	EB-89 1 2500000 0000228	
e elstati	L LIVE	7 .0.111	2.27	Err with he	W1 1	tal Inc. I se	z	The Str. Me are one the fire	/ t r
<b>2130:</b>	17 .	15.	13.	20.	19.	16.	15.	14.	23.
2139:	18.	24.	24.	16.	19.	21.	20.	20.	12.
2148:	20.	12.	18.	16.	11.	17.	15.	9.	16.
<b>2</b> 157:	19.	19.	20.	14.	19.	14.	19.	20.	24.
21665	22.	12.	10.	18.	27 .	25.	15.	20.	8.
2175:	15.	28.	21.	21.	20.	16.	20.	21.	14.
2184:	17.	14.	18.	26.	19 -	11.	13.	18.	17.
2193:	14.	16.	24.	17.	13.	16.	22.	20.	18.
2202:	24.	17' .	26.	21.	15.	20.	17.	13.	10.
2211 s	23.	18.	13.	14.	21.	16.	17' =	17 .	24.
2220:	20.		20.	18.	19.	17 -	24.	14.	18.
2229:	19.	26.	23.	39.	31.	45.	45.	51.	47.
<b>2238</b> :	54.	39.	34.	46.	47.	50.		63.	71.
2247:				468.		1864.		4945.	6515.
	6995.		4707.		1605.	763.	272.	76.	24.
<b>2</b> 265:	13.	9.	7.	6.	7.	6.		3.	3.
2274;		aj "		7.	2.	4.		5.	9.
2283:	10.	5.	7.	12.	6.	8.			
2292;	6.	9.	1.	2.	3.	2.	1.	4	
2301:	10.	4	6.	5.	3.	5.		7.	4.
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2328 #	9.	6.	13.	10.	9.	7.		12.	8.
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2625#		6.	2.	12.	6.	6.	6.	2.	3.
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Bullet Lead-117-95-246207

# FBI LABORY WASHINGTON DC

14-FEB-89 Ø6:19:37

05C 81206010 NC

SAMPLE WEIGHT: ( UG ) 11484.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 18:45:22 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 907. SEC KEV/CHNL: 0.2500000

🖢 ELAPSED LIVE TIME: 900, SEC OFFSET: -0.0000228 KEV

#### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCE	NTR.	1 SIGMA ERROR		%ERROR
%-COPPER	511.0	240.	1420.	0.00	95	0.0003		3.1
Z-ANTIMONY	564.1	125.	36775.	0.67	87	0.0040		0.6
%-ARSENIC	559.3	165.	107.	0.00	11	0.0002		19.6
Z-ARSENIC	657.0	12.	16.	0.00	13	0.0005		41-1
CNTS/UG/MI CENTROID C HALF-LIFE BACKGROUND BACKGROUND PEAK CHANN	HANNEL SPACING CHANNELS	14 20 12 50	.8 H L&R L&R	SB 34.6 2256 2.7 D 80 L&R 22 L&R 13	30 11	AS 73.26 2237 26.3 H L CH 2242 L 1 R	R	AS 8.85 2629 26.3 H 25L 19 R 1Ø L&R 5
) 1988; 1	2. 19.	22.	21. 2.	1. 17.	i			19.

	1988#	12.	19	22.	21.	21.	17.	17.	15.	19.
_	1997 :	18.	24.	23.	24.	18.	17.	22.	17.	23.
	2006:	19.	14.	21.	25.	13.	20.	17.	18.	19.
	2015:	22.	21.	15.	14.	21.	20.	21.	20.	17.
_	2024:	17.	19.	14.	19.	28.	24.	25.	29.	23.
	2033#	27.	35.	38.	47.	74.	78.	99.	125.	144.
	2042:	174.	158.	173.	148.	158.	130.	113.	පිර-	56,
	2051:	57 x	43.	39.	35.	27.	30.	26.	21.	18.
	2060:	18.	16.	18.	15.	24.	21.	10.	15.	14.
	2069:	19.	20.	17.	13.	22.	21.	20.	13.	21.
	2078:	21.	17.	17.	8.	16.	15.	12.	10 .	22.
	2087:	15.	18.	16.	25.	20.	11.	19.	19.	20.
	2096:	20.	15.	18.	14.	16.	21.	16.	16.	13.
	2105:	19 .	10.	21.	14.	13.	14.	16.	20.	13.

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Bullet Lead-118-95-246207

## FBI LABOATORY WASHI: FTON DC LEAD ANALYSIS 14-FEB-89 06:19:51

Q5C 81206010 NC

SAMPLE WEIGHT: ( UG ) 11484.00 13-FEB-89 09:49:00 NIST RT4 5MIN *ACTIVATION:* ACQUIRE DATE: 13-FEB-89 18:45:22 GEN 13 CALIB DATE: 13-FEB-89 14:27:53 900. SEC PRESET LIVE TIME: 0.2500000 ELAPSED REAL TIME: 907. SEC *KEV/CHNL:* 900. SEC ELAPSED LIVE TIME: OFFSET: -0.0000228 KEV 23. 12. 17. 12. 12. 22. 18. 14. 12. 2130: 9. 20. 16. 20. 2139 # 15. 15. 17. 15. 16. 20. 17. 13. 15. 13. 9. 23. 10. 19. 13. 22. 14. 2148: 16. 18. 6. 18. 7. 11. 13. 9. 15. 17. 9, 2157: 18. 19. 17. 13. 24. 15. 13. 15. 16. 16. 21663 13. 10. 10 . 14. 18. 27. 16. 2175 # 13. 18. 11. 14. 12. 15. 20. 13. 19. 12. 21845 17. 15. 2193: 14. 12. 15. 14. 17. 18. 14. 14. 10. 21. 2202: 12. 17 . 26. 19. 14. 17 . 13. 16. 2211: 19. 19. 28. 18. 23. 15. 18. 14. 2220: 23. 22. 35. 46. 41. 66. 2229 = 28. 18. 36. 45. 45. 48. 52. 57. 1646. 2949. 4442. 5584. 2238: 42. 39. 38. 52. 36. .85. .881 36. 846. 381. 99. 2247 # 64. 692. 243. 80. 2256: 6158. 5479. 4278. 2702. 1500. 26. *...* , , 4. 9. 5. 2265: 12. 3. アル 6. ď., 6. 5. 4. 3. 5. 6. 7. 1. 5. 6. 3. 6. 4. 10. 10. 5. 4. 6. 4. 4. 22743 4. 2. 3. 6. 3. ark ... 3. 5. 4 3. aif ... 1. 2283: 7. 8. 6. 5. 2. 2292# ₹. κi). 6. 7. 4. 2. 5. 5. 2301: 6. 4. 4. 5. 2. 10. 3. 4 5. 2310: 6. 5. 4° 4 2. 2319 = 6. 3. 0. 6. 3. 8. 3. 7. 8. 2328: 5. 5. 2. 7. 6. 2337 # 4. 2. 2. 6. 3. 23461 İ. 7. 8. 2. 4. 5. 2355# 5. 4 ... 1. 1. 5. Ø., 2. 23641 3. aig " 3. ail ... 6. awrzmowy z arsenic -elegii 3. 6. 5. 2598# 4. 2. 5. 2. 2. 0. 2. 2. 4. 4 . 5. 3. 2607: 1. 꺜. ... 2616: 2. 5. 2. 3. 2. 2. 1 . 5. 2. 2. 8. 8. 6. 3. 3. 2625: 3. 0. 5 .. 3. 2. 5. 26341 2. 5. 6. 5. Ø. 2. 1 . 1 . 2643# 4. 1.

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Bullet Lead-119-95-246207

# FBI LABORTORY WASHINGTON DC

14-FEB-89 06:20:42

GEA 81206010 NC

SAMPLE WEIGHT: ( UG ) 13908.00

PEAK

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 19:00:39 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

1 SÍGMA

ELAPSED REAL TIME: 908. SEC KEV/CHNL: 0.2500000

) ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

#### UNKNOWN SAMPLE REPORT

ELEMENT	, , , , , , , , , ,	ENERGY 	BKGNI	) A1	REA	CONC	E <i>NTR.</i> 	E	RROR	%ER	ROR
%-COPPER		511.0							.0003		
Z-ANTIMO											
Z-ARSENI	C		237	7	126.				.0002		9.5
Z-ARSENI	C	657.0	1:	? <u>.</u>	16.	0.00	911	2	.0005	*** ·	6.0
				CU		នន		.49	ì		AS
CHTS/UG/	MIN A	T RD		141.6		34.6		73.	26		8.85
CENTROID				2043		2256		2237	•		2628
HALF-LIF				12.8 H		2.7 D		26.3	H		26.3 H
BACKGROU		ACING									L 19 R
BACKGROU				22 L&R							10 L&R
PEAK CHA	NNELS			13		13		5			5
1988:	22.	28.	19.	19.	29.	25.	e .	16.	31.	23.	
1997:	24.	36.	29.	24.	24.	30.		31.	26.	29.	
2006:	28.		24.								
2015:	20.		23.				·	19.	25.		
2024:			21.			20.					
	43.		56.								
		225.									
		53.								14.	
2060:			22.		16.	17.	æ .	27.	29.		
	24.		1 E .			16.					
			21.			27.				13.	
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2105:	23.	20.	20.	16.	27 .	. 12.	. ·	21.	15.	27.	

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Bullet Lead-120-95-246207

# FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 Ø6:20:55

ae.a SIZØSØIØ NC

ACGUIRE PRESET L	LIVE T	IME:	90	Ø. SEC		DATE:		EB-89 1	
ELAPSED	REAL	TIME:	90	8. SEC	KEV	//CHNL:	Ø.	2500000	§
ELAPSED	LIVE	TIMEs	90	Ø. SEC	OFF	SET	-Ø.	0000228	KEV
2130:	28.	18.	19.	17.	12.	16.	13.	12.	19.
2139:	21.	22.	22.	19.	16.	20.	19 .	27.	15.
2148:	23.	24.	21.	15.	24.	19.	19.	21.	14.
2157:	13.		19.	17.	14.	13.	18.	20.	17.
2166:	14.		23.	25.	17.	18.		20.	16.
2175 :	19.		19.	16.	15.	20.		20.	21.
2184:	17 .		16.	12.	18.	12.		16.	19.
2193:	21.		13.	23.	28.	15.		21.	21.
2202:	20.		24.		19.	19.	24.	23.	18.
2211 :	23.		23.	24.	18.	26.		13.	23.
	26.		20.	19.		. 25.		26.	30.
2229#	37.		31.		30.	44 "		62.	53.
2238:	60.		39.	46.		58.		77.	79.
2247:			270.			2159.		5451.	6837.
2256: 7			5141.	3219.			309.	96.	36.
2265:	7.	4.	6.	6.	9.	5.		11.	
2274#		9.		7.			4.		5.
2283:	9.		1.		6.		7.		7.
2292:	8.	aţ "		4.			5.		6.
2301:	7.	6-		3.		4	4ļ. "	5	3.
2310:	5.	5.	Z.	5.		2.	4. "	6.	5.
2319:	4.	8.	S.	1.	A). "	7.	5.	5.	10.
2328:	2.	5.	4.). "	7.	12.	11.	7.	"E	8.
2337 #	7.			8.		9,	3.	7.	aj "
2346:	0.	2.	3.	4.	8.	7.	2.	9.	3.
2355:	9.	2.	5.	£.	<i>i</i> .	8.		6.	3.
2364#	2.	*** **	5.	3.	3.	6.	6.	1 -	4.
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Bullet Lead-121-95-246207

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# FBI LABORY WASHINGTON DC

14-FEB-89 06:21:46

GEB 81206010 NC

SAMPLE WEIGHT: ( UG ) 13925.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 19:16:00 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 908. SEC KEV/CHNL: 0.2500000

ELAPSED LIVE TIME: 900. SEC OFFSET: -0.0000228 KEV

#### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONC	ENTR.	I SIGM ERROR		%ERROR
%-COPPER	511.0	288.	1728.	Ø.0	098	0.000	Ξ.	2.8
Z-ANTINONY	564.1	154.	44725.	0.6	844	0.003	8	0.6
%-ARSENIC	559.3	196.	195.	0.0	016	0.000	2	12.4
	657.Ø	17.	11.	7.306	4E-04	4.5943	E-Ø4	62.9
			cu	SB		AS		AS
CNTS/UG/MIN	AT RD	14	1.6	34.6		73.26		8.85
CENTROID CH	ANNEL	20	aff aff	2256		2237		2629
HALF-LIFE		12	.8 H	2.7 D		26.3 H		26.3 H
BACKGROUND	SPACING	50	L&R	80 L&R	30	L CH 224	4 R	25L 19 R
BACKGROUND		22	L&R	22 L&R	11	L 1 R		10 L&R
PEAK CHANNE		13		13		5		5
1988: 32	. 22.	35.	29. 19	7. 21	. :	26. 20		21.
1997: 20	25.	19.	34. 22	2. 28	: ي	23. 20	i	29.

	1988:	32.	22.	35.	29.	19.	21.	26.	20.	21.
_	1997 :	20.	25.	19.	34.	22.	28.	23.	20.	29.
	2006:	21.	17 .	26.	24.	24.	21.	35.	33.	27.
	2015:	30.	26.	32.	28.	21.	25.	19.	17 .	35.
	2024:	18.	21.	27.	21.	27.	17.	21.	31.	40.
	2033;	29.	45.	51.	64.	73.	111.	133.	130.	200.
	2042:	213.	218.	216.	162.	176.	173.	120.	90.	74.
	2051:	65.	49.	38.	30.	20.	30.	20.	19 -	18.
	2060:	19.	20.	20.	16.	18.	16.	19.	27.	10 .
	2Ø69 s	20.	30.	18.	16.	14.	24.	25.	17 -	11.
	2078:	17.	15.	10.	17 -	14.	21.	10.	18.	24.
	2087:	23.	13.	19.	25.	24.	21.	21.	17.	18.
	2096:	23.	14.	28.	20.	26.	30.	17.	18.	15.
	2105:	17.	19.	22.	18.	14.	18.	17.	27.	21.

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Bullet Lead-122-95-246207

# FBI LABO ATORY WASHINGTON DC

14-FEB-89 Ø6:22:00

Q6B 81206010 NC

ACTIV ACQUI PRESE ELAPS	E WEIGHT 'ATION: 'RE DATE: 'T LIVE T 'ED REAL 'ED LIVE	. 13-FE) : 13-FE) TIME: TIME:	3—89 Ø9 3—89 19 9 <i>0</i> : 9 <i>0</i> :	:49:00 :16:00 0. SEC 8. SEC	GEM 1 CALIB KEV	RT4 5MI 3 DATE: /CHNL: SET:	13-F , Ø.	2500000	
) ELAPS	ED LIVE	1 111 = 3	727	er oct	UFF	3E13		M.M.A.M.Y.Y.Y.O.	NLS
2130	); 22.	14.	19.	17.	19.	21.	18.	14.	19.
2139	23.	15.	22.	13.	21.	12.	20.	26.	11.
2148	?: 22.	26.	14.	19.	12.	22.	19.	16.	14.
2157	's 23.	I 47	20.	12.	18.	30.	14.	19.	22.
2166		28.	20.	16.	13.	17.	18.	14.	14.
2175	7: 26.	23.	16.	16.	13.		20.	19.	23.
2184		19.	11.	17 .	20.	, 11 x	17 -	16.	14.
2193			14.		21.	10.	16.	19.	16.
2202			19.		20.	17 -	19.	18.	15.
2211			19.			18.			
2220			20.			23.			
2229						44.			
2238		59.						67.	
2247	7: 89.	143.	233.	483.	1023.	2076.	3615.	5393.	6933.
	5 7528.								
2265		2.							7.
2274									5.
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2292	?: 8.	7 -	2.	7.	4) ²	5.	8.	7.	3,
2301	/ = 5.	7. 4.	6.	8.	6.	10.	10.	10.	3.
2310		4.				7.			
2319	9 5 -	8.	8.	7.	6.	1	7.	3.	5.
2328	R: 10.	ā.	7.	12.	5.	7.	8.	4,	8.
2337	7: 7.	8. 4.	2.	3.	5.	Ğ.,	3.	6.	
2346		7.	2.	Ē	7.	6.	4.	9.	2.
2355		3.	R.	3.	5.	8.	6.	7.	8.
2364	4: 5.	4.	8.	5.	2.	7.	9.	if i	5.
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an ar Fan	ars.	EWZC		<b>23</b>	. <i>e</i> e i	ī 6			
2598		₹.	3.	1 .	1	3.	3.	1.	5-
2607		<i>5.</i>	2.	≄}	2.	4.	2.	3.	3.
2616	S: 2.	3.	2.	2.	1 .	2.	4.	3.	1 .
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Bullet Lead-123-95-246207

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# FBI LABORATORY WASHINGTON DC LEAD AMALYSIS

14-FEB-89 Ø6:22:51

GEC SIZØ6ØIØ NC

SAMPLE WEIGHT: ( UG ) 14476.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 19:31:20 GEM 13

PRESET LIVE TIME: 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 0.2500000

909. SEC KEV/CHNL: 900. SEC OFFSET: ELAPSED LIVE TIME: 900. SEC -0.00000228 KEV

### UNKNOWN SAMPLE REPORT

ELEMENT	PEAK ENERGY	BKGND	AREA	CONCE	Y <i>TR</i> .		SIGNA RROR	··· ···· ··· ·	%ERROR
%-copper	511.0	292.	1710.	0.009	75	Ø	.0003		2.9
Z-ANTIMONY	564.1	155.	45025.	0.66	16	Ø.	.0036		0.5
Z-ARSENIC	559.3	180.	118.	9.57758	E-Ø4	.1	7819E-	-04	18.6
%-ARSENIC	657.0	17.	22.	0.001	15	Ø.	.0005		34.1
		(	o <i>u</i>	SB		AS			AS
CNTS/UG/MIN	AT RD	14.	1.6	34.6		73.	26		8.8
CENTROID CH.	ANNEL	20.	4.3	2256		2235			2629
<i>HALF-LIFE</i>		12.	.8 H	2.7 D		26.3	Н		26.3
BACKGROUND :	SPACING	50	L&R	80 L&R	30	L CH	2238	R	25L 19
BACKGROUND (	CHANNELS	22	L&R	22 L&R	11	L I	R		10 L8
PEAK CHANNE	LS	13		13		5			Ę;

•	1988:	12.	31.	18.	27.	18.	30.	25.	27.	25.
	1997 :	31.	26.	19.	17.	21.	20.	30.	27.	27 .
	2006:	27.	24.	23.	22.	23.	20.	21.	27.	22.
	2015:	23.	25.	25.	26.	27 -	24.	38.	27.	31.
	2024:	20.	20.	21.	26.	24.	19.	26.	22.	35.
	2033;	41.	31.	69.	56.	78.	100.	126.	150.	175.
0	2042:	179.	220.	188.	201.	179.	165.	124.	117.	73.
	2051:	56.	50.	.E4	33.	34.	35.	29.	25.	23.
	2060:	32.	15.	23.	18.	10.	26.	22.	15.	14.
	2069:	27.	23.	19.	20.	20 .	30.	21.	19.	16.
	2078:	20.	23.	9.	17.	15.	16.	21.	18.	25.
	2087;	17 .	26.	18.	20.	22.	29.	14.	26.	18.
٠	2096:	12.	24.	15.	16.	18.	29.	22.	25.	21.
	2105:	21.	17.	16.	17.	25.	14.	20.	20.	19.

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Bullet Lead-124-95-246207

# FBI LABOATORY WASHI TON DC LEAD ANALYSIS

14-FEB-89 Ø6:23:05

G6C 81206010 NC

PRESET ELAPSED ELAPSED	LIVE T	TIME:	90 90	Ø. SEC 9. SEC Ø. SEC	KEV	DATE: /CHNL: SET:	Ø.	EB-89 1 2500000 0000228	i .
	,								
2130:	14.	21.	18.	14.	21.	27.	12.	17.	17.
2139 \$	20.	22.	15.	20.	25.	22.	14.		21.
2148:	19.	19.	20.	22.	21.	18.	16.	18.	19.
2157:	12.	19.	23.		14.	20.		19.	15 J
2166:	15.	19.	20.	19.	16.	12.	16.	21.	19.
2175 #	16.	21.	22.	15.	14.	21.		29.	
2184:	24.		28.	15.	17.	13.		20.	20.
2193:		25.	12.	16.	12.	20.	12.	16.	17.
2202:	19.	i3.	j 4.	13.	20.	14.	9.	24.	21.
22111	26.	20.	19.		20.	22.	21.	13.	
2220 :	23.		23.		20.	26.	22.	29.	24.
2229#	20.	26.	28.		47.	of of a	49.	ಟ1.	55.
2238:	39.	55,	48.	40.	49.			51.	
2247:	84.		220.			2053.		5324.	6839.
2256:	7577.		5448.			806.	305.		26.
2265:	7.	8.	2.	2.	6.		<i>*</i>	7.	10.
22743	7.	6. 5.	12. 7.	4) <u>.</u> 3 .	3. 4.	4.	9.		중.
2283:	6.				4.	8,		5.	4.
2292:	2.	£			6.	7.			7.
2301:	6.	11.	a)	3.	6.	6.	7.	6.	4.
2310:	3.	7. 4.	7. 6.			.1	6.	4.	<b>6</b> .
2319:	2.	<i>#</i> _	6.	2.	7.	7.	3.	アレ	Ø.
2328:	6.	4.	10.		10 -	7.	7.	ě.	8.
2337 #	57 .	5.	5.	1 -	4.	.5.	4.	6.	
2346:	3.	3	5. 3.	2.	a2}	3.	1 .	5.	
2355:	10.	3.	3.	<i>i</i>	8.	5.	2.	6.	
2364;	11.	n\$	5.	4.		1.	4.	ar "	5.
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2598: 2. 4. 2. 4. 2. 7. 1. 5. 3. 2607: 5. 5. 1. 5. 6. 3. 4. 3. 5. 2616: 4. 8. 5. 2. 5. 3. 3. 3. 5. 2. 2625: 6. 8. 16. 1. 5. 8. 9. 2. 7. 2634: 5. 5. 5. 2. 3. 5. 3. 4. 2. 5. 2. 2643: 4. 6. 0. 2. 5. 4. 2. 3. 3.

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Bullet Lead-125-95-246207

## FBI LABORTORY WASHI FTON DC LEAD ANALYSIS

14-FEB-89 Ø6:23:56

QFASIZØ6ØIØ NC

SAMPLE MEIGHT: ( UG ) 16272.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5NIN

ACQUIRE DATE: 13-FEB-89 19:46:41 GEN 13

900. SEC CALIB DATE: 13-FEB-89 14:27:53 PRESET LIVE TIME:

0.2500000 911. SEC ELAPSED REAL TIME:

KEV/CHNL: OFFSET: 900. SEC ELAPSED LIVE TIME: -0.0000228 KEV

#### UNKNOWN SAMPLE REPORT

ELEMENT		PEAK ENERGY	BKGNI	) A.	REA	CONC	CENTR.			S <i>IGMA</i> R <i>ROR</i>	ZEI	RROR
								· • •		··· ··· ··· ··· ··· ·		the good of errors dones
%-copper	?	511.0	355	7. 4	354.	0.1	<i>0218</i>		Ø.	.0004		1.8
Z-ANTIME	INY	564.1	200	5. 55	178.	0.	7265		Ø.	.0037		Ø.5
Z-ARSENI	TC	559.3	257	7	656.	0.1	0048		Ø.	.0003		5.3
Z-ARSENI	TC.	657.0	24	¥_	82.	0.1	0049		Ø.	.0007	j	i4.1
•				CU		SB			AS			AS
CNTS/UG/	MIN A	T RD		141.6		34.0	5	7	73.:	26		8.85
CENTROIL	CHAN	NEL		2044		2256		23	236			2627
HAIF-ITE	= =			12.8 H		2.7 D		26	3.3	H		26.3 H
BACKGROU	UND SP	ACING		50 L&R		80 L&1	9 30	1	CH	2243	R = 25	5L 19 R
		ANNELS		22 L&R		22 L&/	R 11	L	1	R		10 L&R
PEAK CH				13		13		5				5
1988:		32.	23.	24.	34.	. 2	5.	31.	•	26.	37'.	*
			30.								20.	
2006:	31.	23.	32.	28.	25.	. 3:	7.	21.	-		26.	
		33.	27.	33.	33.	. 4.	3 -	31.	•	43.	27.	•
		38.	31.	43.	30.	. 4 <u>1.</u> 4	Ø	39.	•	58.	62.	•
	62.		127.									
2042:			493.									
		105.	96.	54.	46.							
		27.	22. 22.	28.	29.	. 2.	4 . 	29.	•	37.	23.	
2069:	20.	32.	22. 28.	23.	25.	. 2.	ქ. ლ	12.	•	31.	37.	
	24.	18.	28.	31.	19.	. 1	7' sr	35.	•	%6.	26.	
2087:	27.	35.	26.	21.	26.	, 3. 	.l .=	ZÓ.	•	24.	21.	
2096:	27.	25.	14.	28.	36.	. 3:	0 . -	1/.	•	22.	27.	ar.
2105:	22.	13.	22.	25.	27.		7 m	18.	-	213	23.	*

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Bullet Lead-126-95-246207

# FBI LABORY WASHI FTON DC

14-FEB-89 06:24:09

Q7A 81206010 NC

	SAMPLE	WEIGHT	: ( UG	) 16	272.00					
	ACTIVAT	TION:	13-FE	B-89 <i>0</i> 9	:49:00	NIST	RT4 5MI	Ħ		
	ACQUIRE	E DATE:	13-FE	B-89 <i>1</i> 9	:46:41	GEN 1	3			
	PRESET	LIVE T	IMEz	90	Ø. SEC	CALIB	DATES	13-F	EB-89 1	4:27:53
	ELAPSE	D REAL	TIMEs	91	1. SEC		/CHNL:		2500000	i.
	ELAPSET	D LIVE	TIME:	90	Ø. SEC	OFF	SET	$-\varnothing$ .	<i>0000228</i>	KEV
•	2130:	22.	17.	22.	27.	26.	23.	24.	21.	25.
	2139:	23.	21.	23.	26.	26.	24.	29.	22.	17.
	2148:	23.	14.	20.	20.	34.	22.	22.	25.	21.
	2157:	20.	27.	17.	17'.	19.	22.	21.	26.	24.
	21662	35.	33.	24.	22.	15.	15.	24.	32.	
	2175:	13.	27.	18.	34.	27.	21.		24.	
	21842	14.	17.	23.	24.	32.	20.	29.	24.	20.
	2193:	26.	20.	22.	26.	16.	28.		30.	23.
	2202:	18.	24.	25.		22.	30.	22.	21.	15.
-	2211:	29.	23.	27.		26.	26.	23.	30.	19.
	2220:	24.	26.	24.		35.	25.	39.	27.	35.
	2229;	33.	38.	45.	74.	122.	131 -	180.	177 .	188.
•	2238:	173.	117.	88.	63.	72.	54.	87.	78.	88.
	2247:	107 .	166.	332.	619.	1254.	2595.	4420.	6674.	8455.
	2256 £	9149.	8347.	6329.	4091.	2133.	976.			
•	2265#	9.	13.	5 .	9.	8.	6.		7.	7.
	2274 =	9.	7.	7	3.	フ.	5	9.	5.	51
	2283;	8.	7.	<i>4</i> }	5.	5.	9.	8.	12.	10 . /
	2292:	12.	3.	6	6.		tat. ar		5.	8,
	2301:	6.	5.	5	9.				5.	5.
	2310:	8.	3.	6.	5.		5.	5.	8.	5.
	2319:	7.	5.	2.	2.	7.	7.	3.	4.	6.
	2328#		11.	6	10.	7.	10.	8.	ట.	4.
	2337 :	9.	8.	11.	8.	8.	3.		6.	8.
	23465	. E	7.	6.	8.	8.	4.	5.		11.
	2355:	9.	5.	5.	£.,	7.	0.	5.	3.	5.
	2364:	7.	2.	ű.	7.	7.	4, 7	10 .	9.	F.
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% ARSENIC Ø . ØØ48

2598;	2.	3.	- 5.	6.	J.	3.	9.	4.	3.
2607:	3.	4,	£ \$	5.	<u> </u>	** *	6.	3.	5.
26163	2.	7.	7.	1.	2.	2.	aiji "	5.	11.
2625:	16.	21.	25.	21.	23.	8.	16.	8.	8.
2634:	5.	4.	9.	5.	1.	3.	5.	6.	2.
2643:	2.	0.	5.	6.	4.	7.	3.	5.	2.

% ARSENIC 0.0049

PAGE 2

Bullet Lead-127-95-246207

## FBI LABORATORY WASHINGTON DC LEAD ANALYSIS

14-FEB-89 Ø6:25:01

QZB SIZØSØIØ NC

SAMPLE MEIGHT: ( UG ) 16668.00

ACTIVATION: 13-FEB-89 09:49:00 NIST RT4 5MIN

ACQUIRE DATE: 13-FEB-89 20:02:02 GEN 13

PRESET LIVE TIME: . 900. SEC CALIB DATE: 13-FEB-89 14:27:53

ELAPSED REAL TIME: 0.2500000

911. SEC KEV/CHNL: 900. SEC OFFSET: ELAPSED LIVE TIME: 900. SEC -0.0000228 KEV

### UNKNOWN SAMPLE REPORT

ELENENT	PEAK ENERGY	BKGND	AREA	CONCE	∛TR.	1 SIGHA ERROR	%ERROR
 %-COPPER	511.0	379.	4500.	0.023	23	0.0004	1.7
Z-ANTIMONY	564.1	209.	56229.	0.72	<i>47</i>	0.0037	0.5
%-ARSENIC	559.3	271.	647.	0.00-	¥6	0.0003	5.4
Z-ARSENIC	657.0	19 .	73.	0.00	43	0.0006	14.6
		(	$\circ u$	SB		AS	AS
CNTS/UG/MIN	AT RD	143	1.6	34.6		73.26	8.85
CENTROID CH	ANNEL	20*	£3	2256		2237	2627
HALF-LIFE		12.	.8 H	2.7 D		26.3 H	26.3 F
BACKGROUND	SPACING	50	L&R	80 L&R	30	L CH 2243 R	25L 19 F
BACKGROUND	BACKGROUND CHANNELS		L&R	22 L&R	11	L 1 R	10 L&F
PEAK CHANNE		13		13		5	5

	1988:	30.	26.	30.	30.	36.	34.	27.	37.	31.
	1997:	43.	34.	27.	18.	34.	33.	30.	23.	34.
	2006:	22.	26.	28.	43.	26.	397	29.	23.	30.
	2015:	32.	36.	32.	19.	21.	26.	23.	30.	34.
	2024:	42.	42.	33.	27.	39.	38.	45.	32.	51.
	2033:	70.	77.	98.	110 .	195.	264.	320.	381.	afafaf "
•	2042:	485.	467.	477.	469.	436.	372.	325.	244.	184.
	2051:	118.	117.	82.	49.	52.	44.	45.	44.	34.
	2060:	33.	27.	35.	34.	27.	19.	28.	21.	25.
	2069:	21.	24.	29.	20.	23.	25.	19.	16.	32.
	2078:	25.	26.	28.	27.	25.	28.	19.	25.	15.
	2087:	24.	24.	24.	26.	20.	31.	23.	24.	32.
	2096:	32.	27.	20.	12.	18.	32.	34.	29.	23.
	2105:	22.	27.	31.	28.	15.	27.	27.	35.	32.

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Bullet Lead-128-95-246207

## FBI LABORTORY WASHIDSTON DC LEAD AMALYSIS

14-FEB-89 Ø6:25:14

G7B ezzeseze Mc

ACT IV AT	TION:	13 ( 86 13-FE 13-FE	B-89 Ø9.	:49:00	NIST GEN 1	RT4 5MI 3	N		
PRESET	LIVE T	INE:	900	Ø, SEC	CALIB	DATES	13-F	EB-89 1	4:27:53
		TIME:				/CHNL:		2500000	
		TIME				SET#		0000228	KEV
2130:	17.		27.			20.		15.	
2139:	24.		22.		21.				
2148:			18.		23.			22.	
2157:	20.	24.	24.		23.			19.	
21662	25.	19.	19 .	26.	24.	24.			
21752	27.	23.	14.	20.	26.	19 .	29.	22.	28.
2184:	29.	29.	22.	20.	27.	30.	30.	17.	26.
2193:	22.	22.	28.	22.	28.	10.	26.	25.	26.
2202:	22.	15.	17.	29.	26.	26.	35.	32.	23.
2211:	21.	25.	17.	12.	35.	28.	31.	30.	29.
2220:	25.	25.	24.	31.	23.	27.	31.	36.	39.
2229:	32.	39.	44.	68.	115.	136.	193.	184.	169.
	165.		98.	73.	66.	56.	59.	76.	97.
22475	117.	143.	290.	621.	1290.				8635.
2256:		8631.							
2265:		11.						J.	
						9.			
2283;									
2292:		5.	10.	4.	7	11.	9.	5.	4.
2301:		7.		8.	4.	8.	8.	4.	
2310:						4.		9.	
2319 :						1.			
	11.					16.			
						5.			
						9.			
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2607:	1.	దే.*	3.	9.	5.	3.	4	7.	4.
2616:	7.	4.	3.	7	6.	6.	9.	12.	10.
2625	4 2	1 =	27	21	7 7	7 41.	E;	19	8

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FBI LABORY WASHINGTON DC LEAD ANALYSIS 14-FEB-89 06:26:06

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